

# STN Transcript

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NEWS 3 JAN 17 Pre-1988 INPI data added to MARPAT  
NEWS 4 FEB 21 STN AnaVist, Version 1.1, lets you share your STN AnaVist  
visualization results  
NEWS 5 FEB 22 The IPC thesaurus added to additional patent databases on STN  
NEWS 6 FEB 22 Updates in EPFULL; IPC 8 enhancements added  
NEWS 7 FEB 27 New STN AnaVist pricing effective March 1, 2006  
NEWS 8 MAR 03 Updates in PATDPA; addition of IPC 8 data without attributes  
NEWS 9 MAR 22 EMBASE is now updated on a daily basis  
NEWS 10 APR 03 New IPC 8 fields and IPC thesaurus added to PATDPAFULL  
NEWS 11 APR 03 Bibliographic data updates resume; new IPC 8 fields and IPC  
thesaurus added in PCTFULL  
NEWS 12 APR 04 STN AnaVist \$500 visualization usage credit offered  
NEWS 13 APR 12 LINSPEC, learning database for INSPEC, reloaded and enhanced  
NEWS 14 APR 12 Improved structure highlighting in FQHIT and QHIT display  
in MARPAT  
NEWS 15 APR 12 Derwent World Patents Index to be reloaded and enhanced during  
second quarter; strategies may be affected  
NEWS 16 MAY 10 CA/CAPLUS enhanced with 1900-1906 U.S. patent records  
NEWS 17 MAY 11 KOREAPAT updates resume  
NEWS 18 MAY 19 Derwent World Patents Index to be reloaded and enhanced  
NEWS 19 MAY 30 IPC 8 Rolled-up Core codes added to CA/CAPLUS and  
USPATFULL/USPAT2  
NEWS 20 MAY 30 The F-Term thesaurus is now available in CA/CAPLUS  
NEWS 21 JUN 02 The first reclassification of IPC codes now complete in  
INPADOC

NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.  
V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT  
<http://download.cas.org/express/v8.0-Discover/>

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=> FILE REG

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SINCE FILE

TOTAL

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SESSION

FULL ESTIMATED COST

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0.21

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STRUCTURE FILE UPDATES: 22 JUN 2006 HIGHEST RN 889059-26-1

DICTIONARY FILE UPDATES: 22 JUN 2006 HIGHEST RN 889059-26-1

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\*\*\*\*\*  
\*  
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\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> S METHACRYLIC ACID/CN

L1 1 METHACRYLIC ACID/CN

=> D

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN

RN 79-41-4 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2-Propenoic acid, 2-methyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN **Methacrylic acid (8CI)**

OTHER NAMES:

CN  $\alpha$ -Methacrylic acid

CN  $\alpha$ -Methylacrylic acid

CN 2-Methyl-2-propenoic acid

CN 2-Methylacrylic acid

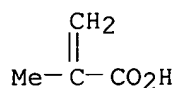
CN Acrylester MAA

CN GE 110

CN Light Ester A

CN Loctite 3298

CN Methylacrylic acid  
 CN Norsocryl MAA  
 CN NSC 7393  
 FS 3D CONCORD  
 DR 463311-95-7, 562836-84-4  
 MF C4 H6 O2  
 CI COM  
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

23214 REFERENCES IN FILE CA (1907 TO DATE)  
 11916 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 23242 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 11 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> S 79-41-4/CRN  
 L2 46112 79-41-4/CRN

=> S ACRYLIC ACID/CRN  
 L3 0 ACRYLIC ACID/CRN

=> S ACRYLIC ACID/CN  
 L4 1 ACRYLIC ACID/CN

=> D

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN

RN 79-10-7 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2-Propenoic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN **Acrylic acid (6CI, 7CI, 8CI)**

OTHER NAMES:

CN Acroleic acid

CN Ethylenecarboxylic acid

CN NSC 4765

CN Propenoic acid

CN Vinylformic acid

FS 3D CONCORD

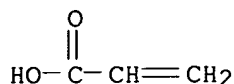
DR 55927-87-2

MF C3 H4 O2

CI COM

LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE,

TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*Enter CHEMLIST File for up-to-date regulatory information)



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39425 REFERENCES IN FILE CA (1907 TO DATE)  
22479 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
39484 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> S 79/10/7/CRN  
L5 0 79/10/7/CRN

=> S 79-10-7/CRN  
L6 59563 79-10-7/CRN

=> FILE CAPLUS	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	14.20	14.41

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FILE LAST UPDATED: 22 Jun 2006 (20060622/ED)

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=> S(NOvolak or novalak or novolac or novolak) or ((phenol cresol) AND (aldehyde formaldehyde))  
S(NOVOLAK IS NOT A RECOGNIZED COMMAND  
The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> S (NOvolak or novalak or novolac or novolak) or ((phenol cresol) AND (aldehyde formaldehyde))  
25763 NOVOLAK

128 NOVALAK  
 2252 NOVOLAC  
 25763 NOVALAK  
 241974 PHENOL  
 55190 CRESOL  
 841 PHENOL CRESOL  
 (PHENOL(W)CRESOL)  
 105466 ALDEHYDE  
 140764 FORMALDEHYDE  
 51 ALDEHYDE FORMALDEHYDE  
 (ALDEHYDE(W) FORMALDEHYDE)  
 L7 26806 (NOVOLAK OR NOVALAK OR NOVOLAC OR NOVOLAK) OR ((PHENOL CRESOL)  
 AND (ALDEHYDE FORMALDEHYDE))

=> D HIS

(FILE 'HOME' ENTERED AT 19:14:15 ON 23 JUN 2006)

FILE 'REGISTRY' ENTERED AT 19:14:32 ON 23 JUN 2006

L1 1 S METHACRYLIC ACID/CN  
 L2 46112 S 79-41-4/CRN  
 L3 0 S ACRYLIC ACID/CRN  
 L4 1 S ACRYLIC ACID/CN  
 L5 0 S 79/10/7/CRN  
 L6 59563 S 79-10-7/CRN

FILE 'CAPLUS' ENTERED AT 19:15:44 ON 23 JUN 2006

L7 26806 S (NOVOLAK OR NOVALAK OR NOVOLAC OR NOVOLAK) OR ((PHENOL CRESOL

=> S L1 OR L4

23242 L1

39484 L4

L8 53490 L1 OR L4

=> S L8 AND L7

L9 592 L8 AND L7

=> S L9 AND ACETAL

49047 ACETAL

L10 2 L9 AND ACETAL

=> D ALL 1-2

L10 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:57528 CAPLUS  
 DN 142:144115  
 ED Entered STN: 21 Jan 2005  
 TI Manufacture of planographic printing plates with excellent scratch and  
 chemical resistance  
 IN Maemoto, Kazuo; Watanabe, Noriaki  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 53 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM G03F007-00  
 ICS G03F007-004; G03F007-032; G03F007-11; G03F007-38  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)  
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005017599	A2	20050120	JP 2003-181121	20030625
PRAI	JP 2003-181121		20030625		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2005017599	ICM	G03F007-00
	ICS	G03F007-004; G03F007-032; G03F007-11; G03F007-38
	IPCI	G03F0007-00 [ICM,7]; G03F0007-004 [ICS,7]; G03F0007-032 [ICS,7]; G03F0007-11 [ICS,7]; G03F0007-38 [ICS,7]
	IPCR	G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-032 [I,A]; G03F0007-032 [I,C*]; G03F0007-11 [I,A]; G03F0007-11 [I,C*]; G03F0007-38 [I,A]; G03F0007-38 [I,C*]
	FTERM	2H025/AA12; 2H025/AA13; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/CB13; 2H025/CB14; 2H025/CB29; 2H025/CB52; 2H025/CC03; 2H025/CC20; 2H025/DA36; 2H025/FA01; 2H025/FA03; 2H025/FA17; 2H096/AA07; 2H096/AA08; 2H096/BA09; 2H096/BA16; 2H096/BA20; 2H096/CA05; 2H096/DA10; 2H096/EA04; 2H096/GA08; 2H096/JA02

AB The plates are manufactured by these steps; applying undercoat compns. containing

water-insol. and alkali-soluble resins (A; e.g., acrylic, urethane, or **acetal** resins) on hydrophilic supports, applying upper coatings containing water-insol. and alkali-soluble resins and development inhibitors

and

increasing solubility in aqueous alkali solns. upon exposure, and bringing the coating surface into contact with OH-bearing compds. The upper coatings may contain A-insolubilizing solvents.

ST planog printing plate scratch chem resistance; bilayer presensitized lithog platemaking dissoln rate gradient; cresol **novolak** moisture hardening lithog platemaking

IT Polyvinyl acetals

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(formals, Vinylec B 2, trimellitate, underlayers; platemaking on bilayer presensitized lithog. plates exhibiting graded dissoln. rate against developers)

IT Phenolic resins, processes

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(**novolak**, cresol-based, uppercoat layers; platemaking on bilayer presensitized lithog. plates exhibiting graded dissoln. rate against developers)

IT Lithographic plates

(presensitized; platemaking on bilayer presensitized lithog. plates exhibiting graded dissoln. rate against developers)

IT Acrylic polymers, uses

Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(underlayers; platemaking on bilayer presensitized lithog. plates exhibiting graded dissoln. rate against developers)

IT 825627-83-6

RL: CPS (Chemical process); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(development inhibitors, uppercoat layers; platemaking on bilayer presensitized lithog. plates exhibiting graded dissoln. rate against developers)

IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(monomers; platemaking on bilayer presensitized lithog. plates exhibiting graded dissoln. rate against developers)

IT 7732-18-5, Water, uses

RL: NUU (Other use, unclassified); USES (Uses)

(platemaking on bilayer presensitized lithog. plates exhibiting graded dissoln. rate against developers)

IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, Methacrylic acid, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (platemaking on bilayer presensitized lithog. plates exhibiting graded dissoln. rate against developers)

IT 11146-28-4 37321-70-3, AA 1050  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (substrates; platemaking on bilayer presensitized lithog. plates exhibiting graded dissoln. rate against developers)

IT 552-30-7DP, Trimellitic anhydride, esters with polyvinyl acetals  
 85023-20-7P, 2,2-Bis(hydroxymethyl)propionic acid-MDI copolymer  
 124996-93-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (underlayers; platemaking on bilayer presensitized lithog. plates exhibiting graded dissoln. rate against developers)

IT 321963-43-3  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (underlayers; platemaking on bilayer presensitized lithog. plates exhibiting graded dissoln. rate against developers)

IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (uppercoat layers; platemaking on bilayer presensitized lithog. plates exhibiting graded dissoln. rate against developers)

L10 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1985:462588 CAPLUS

DN 103:62588

ED Entered STN: 24 Aug 1985

TI Photosensitive peel-off film

PA Sanyo-Kokusaku Pulp Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C001-80

ICS G03C005-00; G03F001-00

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60043652	A2	19850308	JP 1983-151208	19830819
	JP 03026824	B4	19910412		
PRAI	JP 1983-151208		19830819		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 60043652	ICM	G03C001-80
	ICS	G03C005-00; G03F001-00
	IPCI	G03C0001-80 [ICM,4]; G03C0005-00 [ICS,4]; G03F0001-00 [ICS,4]
	IPCR	G03C0001-91 [I,A]; G03C0001-91 [I,C*]

AB The material is composed of a transparent support, a colored polymer film layer which is composed of poly(vinyl formal) resin, polyester resin cosol. with poly(vinyl formal) resin, and opaque dye or pigment, and a photosensitive resist layer. The claim also includes the material having an addnl. layer, between the support and the polymer layer, another resin layer mainly composed of alc.-soluble polyamide resin and opaque pigment or dye. The material improves the workability of the masking process,

providing ease of peeling and good etching property. Thus, 2 compns. were prepared, each containing (1) vinyl formal resin (containing poly(vinyl formal) resin 82, poly(vinyl alc.) 6, and poly(vinyl acetate) 12%) 75, polyester resin (terephthalic acid 25, isophthalic acid 25, and 1,4-butanediol 50 mol%) 25, Neozapon Red 20 parts, and solvents and (2) alkali-soluble phenol-**novolak** resin 5, same resin esterified with 1,2-naphthoquinonediazide-5-sulfonyl chloride 10 parts, and solvents. A poly(ethylene terephthalate) film was coated with the 1st composition, dried, and then with the 2nd composition to obtain a photosensitive material. The material was imagewise exposed to UV and treated with an etching solution to dissolve the layers in the exposed part. The etching solution contained Na salicylate 35, NaOH 0.3, and H2O 64.7 parts. The film formed showed high strength and small elongation so that peeling was easy. No premature separation of the film from the support was observed

ST photoresist peel off masking; printing photomech process masking film

IT Printing plates

(photoresist multilayer assemblies for preparation of, with polymer interlayer for improved masking property)

IT Acrylic polymers, uses and miscellaneous

Phenolic resins, uses and miscellaneous

RL: USES (Uses)

(photoresist multilayer assembly with layer containing, for improved workability of masking process)

IT Vinyl **acetal** polymers

RL: USES (Uses)

(formals, photoresist multilayer assembly with layer containing, for improved workability of masking process)

IT Resists

(photo-, polymer interlayer for masking material containing layer of)

IT 3770-97-6D, reaction products with **novolak** resin

RL: USES (Uses)

(photoresist assembly with photosensitive layer containing)

IT 20237-98-3

RL: USES (Uses)

(photoresist assembly with photosensitive layer containing, for masking process)

IT **79-10-7D**, polymers with acrylic ester 9002-89-5 9003-20-7

12227-55-3 30580-17-7 97568-28-0

RL: USES (Uses)

(photoresist multilayer assembly with layer containing, for improved workability of masking process)

=> S L9 AND POLYACETAL

3283 POLYACETAL

L11 0 L9 AND POLYACETAL

=> S L9 AND PHOTOACID

3492 PHOTOACID

L12 6 L9 AND PHOTOACID

=> D ALL 1-6

L12 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:467817 CAPLUS

DN 143:8578

ED Entered STN: 02 Jun 2005

TI Silsesquioxane-based compositions for production of flexible optical waveguides

IN Shelnut, James G.; Pugliano, Nicola; Moynihan, Matthew L.; Zheng, Hai Bin

PA Rohm and Haas Electronic Materials, L.L.C., USA

SO Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DT Patent

LA English



IC ICM C09D183-04  
ICS C08L083-04; G02B006-00  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 73

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1535977	A1	20050601	EP 2004-257060	20041115
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU				
	JP 2005154715	A2	20050616	JP 2004-95483	20040329
	US 2005141839	A1	20050630	US 2004-993069	20041119
	CN 1773313	A	20060517	CN 2004-10095048	20041124
PRAI	US 2003-524820P	P	20031125		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1535977	ICM	C09D183-04
	ICS	C08L083-04; G02B006-00
	IPCI	C09D0183-04 [ICM,7]; C08L0083-04 [ICS,7]; C08L0083-00 [ICS,7,C*]; G02B0006-00 [ICS,7]
	IPCR	C08L0083-00 [I,C*]; C08L0083-04 [I,A]; C09D0183-04 [I,A]; C09D0183-04 [I,C*]; G02B0006-00 [I,A]; G02B0006-00 [I,C*]
JP 2005154715	ECLA	G02B006/122C; G02B006/138
	IPCI	C08L0083-04 [ICM,7]; C08L0083-00 [ICM,7,C*]; C08K0005-00 [ICS,7]; G02B0006-12 [ICS,7]; G02B0006-13 [ICS,7]
	IPCR	C08L0083-00 [I,C*]; C08L0083-04 [I,A]; C09D0183-04 [I,A]; C09D0183-04 [I,C*]; G02B0006-00 [I,A]; G02B0006-00 [I,C*]
	FTERM	2H047/KA04; 2H047/LA12; 2H047/PA02; 2H047/PA22; 2H047/PA28; 2H047/QA05; 2H047/TA00; 4J002/CC042; 4J002/CF112; 4J002/CH052; 4J002/CJ002; 4J002/CK022; 4J002/CL072; 4J002/CN032; 4J002/CP031; 4J002/CP072; 4J002/EC047; 4J002/EC057; 4J002/EE036; 4J002/EJ037; 4J002/EJ047; 4J002/EN106; 4J002/EN116; 4J002/EN136; 4J002/EQ036; 4J002/ET006; 4J002/EU186; 4J002/EV246; 4J002/EV286; 4J002/EV296; 4J002/EV346; 4J002/EW176; 4J002/FD200; 4J002/FD202; 4J002/FD206; 4J002/FD207; 4J002/GQ00
US 2005141839	IPCI	G02B0006-38 [ICM,7]; G02B0006-10 [ICS,7]; H01L0021-31 [ICS,7]; H01L0021-469 [ICS,7]; H01L0021-02 [ICS,7,C*]
	IPCR	G02B0006-10 [I,A]; G02B0006-10 [I,C*]; G02B0006-38 [I,A]; G02B0006-38 [I,C*]; H01L0021-02 [I,C*]; H01L0021-31 [I,A]; H01L0021-469 [I,A]
	NCL	385/129.000
CN 1773313	IPCI	G02B0001-04 [I,A]; G02B0001-00 [I,A]; G02B0006-02 [I,A]; G02B0006-13 [I,A]

AB A composition comprises (a) a polymer comprising units of the formula (RSiO<sub>1.5</sub>), where R is a substituted or unsubstituted organic group, and a plurality of functional end groups, (b) a first component for altering the solubility of the composition in a dried state upon activation, and (c) a second component containing a plurality of functional groups selected from hydroxy, amino, thiol, sulfonate ester, carboxylate ester, silyl ester, anhydride, aziridine, methylolmethyl, silyl ether, and combinations of these groups, the second component being present in an effective amount to improve flexibility of the composition in a dried state before and after activation. The composition is used for production of core and/or clad parts of flexible optical waveguides. Thus, propylene glycol monomethyl ether acetate (40.74), phenyl-methyl-dimethyl silsesquioxane (49/49/2, 53.76), polytetrahydrofuran (5.38), diphenylnaphthylsulfonium perfluorobutanesulfonate (0.11), and silicone oil Silwet L 7604 (0.01%)

were mixed, the composition was coated onto a copper clad laminate (substrate), and dried in an oven at 90° for 30 min. A pattern for forming waveguides was placed on the dried composition, and the coated laminate was exposed to 500 mJ and placed in an oven at 90° for 15 min. The exposed laminate was dipped in a 0.7 N sodium hydroxide developer solution at 37.8° for 30 s, rinsed in deionized water, dried, and heated to 200° for 60 min in an oven to obtain a flexible waveguide.

- ST silsesquioxane **photoacid** catalyst compn flexible optical waveguide
- IT Silsesquioxanes  
 RL: DEV (Device component use); POF (Polymer in formulation); USES (Uses)  
 (fluorine-containing; silsesquioxane-based compns. for production of flexible optical waveguides)
- IT Polyethers, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (hydroxy-terminated; silsesquioxane-based compns. for production of flexible optical waveguides)
- IT Phenolic resins, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (**novolak**; silsesquioxane-based compns. for production of flexible optical waveguides)
- IT Silsesquioxanes  
 RL: DEV (Device component use); POF (Polymer in formulation); USES (Uses)  
 (polysiloxane-; silsesquioxane-based compns. for production of flexible optical waveguides)
- IT Fluoropolymers, uses  
 Polysiloxanes, uses  
 RL: DEV (Device component use); POF (Polymer in formulation); USES (Uses)  
 (silsesquioxane-; silsesquioxane-based compns. for production of flexible optical waveguides)
- IT Nanoparticles  
 Optical waveguides  
 (silsesquioxane-based compns. for production of flexible optical waveguides)
- IT Silsesquioxanes  
 RL: DEV (Device component use); POF (Polymer in formulation); TEM  
 (Technical or engineered material use); USES (Uses)  
 (silsesquioxane-based compns. for production of flexible optical waveguides)
- IT Aromatic hydrocarbons, uses  
 Ethers, uses  
 Fullerenes  
 Hydrocarbons, uses  
 Polyesters, uses  
 Polyimides, uses  
 Polyketones  
 Polyoxyalkylenes, uses  
 Polysulfones, uses  
 Polyurethanes, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (silsesquioxane-based compns. for production of flexible optical waveguides)
- IT 92068-44-5, Methylsilanetriol-phenylsilanetriol copolymer 159577-36-3, Dimethylsilanediol-methylsilanetriol-phenylsilanetriol copolymer 852627-33-9  
 RL: DEV (Device component use); POF (Polymer in formulation); USES (Uses)  
 (assumed monomers; silsesquioxane-based compns. for production of flexible optical waveguides)
- IT 25103-87-1  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (assumed monomers; silsesquioxane-based compns. for production of flexible optical waveguides)
- IT 1678-43-9, Benzoin tosylate 51000-42-1D, amine-blocked 57835-99-1, Triphenylsulfonium hexafluorophosphate 66003-78-9, Triphenylsulfonium

trifluoromethylsulfonate 176035-31-7, Triphenylsulfonium trifluoromethyl sulfate 852617-06-2

RL: CAT (Catalyst use); USES (Uses)

(silsesquioxane-based compns. for production of flexible optical waveguides)

IT 79-10-7D, Acrylic acid, esters 24936-97-8, Poly(1,4-butylene adipate) 24979-97-3, Polytetrahydrofuran 24980-41-4D, Polycaprolactone, triols 25190-06-1, Polytetrahydrofuran, sru 25248-42-4D, Poly[oxy(1-oxo-1,6-hexanediyl)], triols 25322-68-3, Poly(ethylene oxide) 25322-69-4, Poly(propylene glycol) 59269-51-1, Polyvinylphenol

RL: MOA (Modifier or additive use); USES (Uses)

(silsesquioxane-based compns. for production of flexible optical waveguides)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (2) Gronbeck, D; US 2003/099899 A1 2003 CAPLUS
- (3) Shipley Company LLC; EP 1251155 A 2002 CAPLUS
- (4) Sooriyakumaran, R; US 2002/090572 A1 2002

L12 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:819983 CAPLUS

DN 141:340377

ED Entered STN: 07 Oct 2004

TI Fluororesins and photosensitive compositions therewith having good ink repellency and developability

IN Takahashi, Hideyuki; Ishiseki, Kenji

PA Asahi Glass Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F290-06

ICS G03F007-038; C08G077-42

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004277494	A2	20041007	JP 2003-68216	20030313
PRAI	JP 2003-68216		20030313		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004277494	ICM	C08F290-06
	ICS	G03F007-038; C08G077-42
	IPCI	C08F0290-06 [ICM,7]; C08F0290-00 [ICM,7,C*]; G03F0007-038 [ICS,7]; C08G0077-42 [ICS,7]; C08G0077-00 [ICS,7,C*]
	IPCR	C08F0290-00 [I,C*]; C08F0290-06 [I,A]; C08G0077-00 [N,C*]; C08G0077-42 [N,A]; G03F0007-038 [I,A]; G03F0007-038 [I,C*]
	FTERM	2H025/AA10; 2H025/AA13; 2H025/AA20; 2H025/AB14; 2H025/AB16; 2H025/AB17; 2H025/AC01; 2H025/AD01; 2H025/BC13; 2H025/BC42; 2H025/CA00; 2H025/CB33; 2H025/CB42; 2H025/CC17; 4J027/AF07; 4J027/BA07; 4J027/CD10; 4J246/AA03; 4J246/AB02; 4J246/AB13; 4J246/BA02X; 4J246/BA020; 4J246/BB02X; 4J246/BB020; 4J246/BB021; 4J246/CA010; 4J246/CA19X; 4J246/CA190; 4J246/CA22X; 4J246/CA220; 4J246/CA230; 4J246/CA24X; 4J246/CA240; 4J246/CA250; 4J246/CA260; 4J246/CA390; 4J246/CA400; 4J246/CA520; 4J246/CA720; 4J246/EA05; 4J246/GA01; 4J246/GC26; 4J246/HA15

AB The fluororesins have  $\geq 2$  (/group)-F-substituted  $C \leq 20$  alkyls,  
(B)  $(SiR_1R_2O)_nSiR_1R_2R_3$  [ $R_1, R_2 = H, (cyclo)alkyl, aryl; R_3 = H, C1-10$  organic  
group;  $n = 1-200$  integer], and acidic groups and satisfy acid value 5-300  
mg-KOH/g. Compns. of the fluororesins, **photoacid** generators,  
and crosslinking agents bearing two or more groups reactive with the  
acidic groups of the fluororesins, are also claimed. Compns. of the  
fluororesins, radical photopolymn. initiators, and compds. bearing  
 $\geq 2$  ethylenic double bonds and free from acidic groups, are further  
claimed. These compns. provide fine patterns on ink-jet printers and are  
useful for circuit-fabricating masks.

ST fluoropolysiloxane photopatternable resin compn developability ink  
repellency; melamine crosslinkable polysiloxanyl fluororesin  
photopatternable compn

IT Polysiloxanes, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM  
(Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic, fluorine-containing; photosensitive resin compns. containing  
polysiloxanyl-bearing fluororesins and showing good developability and  
ink repellency)

IT Fluoropolymers, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM  
(Technical or engineered material use); PREP (Preparation); USES (Uses)  
(acrylic-polysiloxane-; photosensitive resin compns. containing  
polysiloxanyl-bearing fluororesins and showing good developability and  
ink repellency)

IT Polysiloxanes, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM  
(Technical or engineered material use); PREP (Preparation); USES (Uses)  
(di-Me, mono[(methyloxopropenyl)oxy]propyl group]-terminated, X 24  
8201, polymers with perfluoro(butyl)ethyl methacrylate, methacrylic  
acid, and Me methacrylate; photosensitive resin compns. containing  
polysiloxanyl-bearing fluororesins and showing good developability and  
ink repellency)

IT Phenolic resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**novolak**, photosensitive; photosensitive resin compns. containing  
polysiloxanyl-bearing fluororesins and showing good developability and  
ink repellency)

IT Photoimaging materials  
(photosensitive resin compns. containing polysiloxanyl-bearing fluororesins  
and showing good developability and ink repellency)

IT Aminoplasts  
RL: TEM (Technical or engineered material use); USES (Uses)  
(photosensitive resin compns. containing polysiloxanyl-bearing fluororesins  
and showing good developability and ink repellency)

IT 14159-45-6  
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES  
(Uses)  
(WPAG 199; photosensitive resin compns. containing polysiloxanyl-bearing  
fluororesins and showing good developability and ink repellency)

IT 347841-51-4  
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES  
(Uses)  
(WPAG 367, **photoacid** generators; photosensitive resin compns.  
containing polysiloxanyl-bearing fluororesins and showing good  
developability and ink repellency)

IT 9003-08-1, Mycoat 325  
RL: TEM (Technical or engineered material use); USES (Uses)  
(crosslinking components; photosensitive resin compns. containing  
polysiloxanyl-bearing fluororesins and showing good developability and  
ink repellency)

IT 9016-83-5D, Cresol-formaldehyde copolymer, derivs.  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**novolak**-type; photosensitive resin compns. containing  
polysiloxanyl-bearing fluororesins and showing good developability and

ink repellency)

IT 3584-23-4, 2-(4-Methoxyphenyl)-4,6-bis(trichloromethyl)-1,3,5-triazine  
 RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)  
 (photoacid generators; photosensitive resin compns. containing polysiloxanyl-bearing fluororesins and showing good developability and ink repellency)

IT 90-93-7, 4,4'-Bis(diethylamino)benzophenone 71868-10-5, Irgacure 907  
 RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)  
 (photopolymn. initiators; photosensitive resin compns. containing polysiloxanyl-bearing fluororesins and showing good developability and ink repellency)

IT 79-41-4DP, Methacrylic acid, polymers with methacryloyl-terminated siloxanes and fluoroalkyl methacrylate 80-62-6DP, Methyl methacrylate, polymers with methacryloyl-terminated siloxanes and fluoroalkyl methacrylate 1799-84-4DP, 3,3,4,4,5,5,6,6,6-Nonafluorohexyl methacrylate, polymers with methacryloyl-terminated siloxanes and methacrylic monomers 7534-94-3DP, Isobornyl methacrylate, polymers with methacryloyl-terminated siloxanes and fluoroalkyl acrylate 27905-45-9DP, 1H,1H,2H,2H-Heptadecafluorodecyl acrylate, polymers with methacryloyl-terminated siloxanes and methacrylic monomers 769937-09-9P  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (photosensitive resin compns. containing polysiloxanyl-bearing fluororesins and showing good developability and ink repellency)

IT 769937-10-2P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (photosensitive resin compns. containing polysiloxanyl-bearing fluororesins and showing good developability and ink repellency)

IT 83045-04-9, Kayarad D 310 491570-79-7, Kayarad CCR 1115  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (photosensitive resin compns. containing polysiloxanyl-bearing fluororesins and showing good developability and ink repellency)

L12 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:782069 CAPLUS

DN 141:285856

ED Entered STN: 24 Sep 2004

TI Developing method and solid alkaline developer for photosensitive lithographic plate and printing plate

IN Goto, Kiyoshi

PA Konica Minolta Holdings, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-32

ICS G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004264414	A2	20040924	JP 2003-52933	20030228
PRAI	JP 2003-52933		20030228		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004264414	ICM	G03F007-32
	ICS	G03F007-00; G03F007-004
	IPCI	G03F0007-32 [ICM,7]; G03F0007-00 [ICS,7]; G03F0007-004 [ICS,7]
	IPCR	G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-004

[I,A]; G03F0007-004 [I,C\*]; G03F0007-32 [I,A];  
 G03F0007-32 [I,C\*]  
 FTERM 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/CB13;  
 2H025/CB14; 2H025/CB29; 2H025/CC20; 2H025/FA17;  
 2H096/AA07; 2H096/AA08; 2H096/BA11; 2H096/BA20;  
 2H096/EA04; 2H096/GA08; 2H096/GA09

AB The plate containing an IR absorbing compound and an alkali soluble resin, is developed with a processing solution in which the solid alkaline developer is solubilized, after exposing it according to digitally converted image data. The alkaline developer for the method and printing plate manufactured by the

method, are also claimed. The method shows less printing stain after long run processing and improved dot shape.

ST photosensitive lithog plate solid alk developer; IR absorbent **novolak** resin lithog plate

IT Lithographic plates  
 (development of photosensitive lithog. plate using solid alkaline developer)

IT Phenolic resins, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (**novolak**; development of photosensitive lithog. plate using solid alkaline developer)

IT 9039-25-2, LB 6564  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (LB 6564; development of photosensitive lithog. plate using solid alkaline developer)

IT 124996-93-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (development of photosensitive lithog. plate using solid alkaline developer)

IT 107-21-1D, Ethylene glycol, reaction products with dimethoxycyclohexane 1310-58-3, Potassium hydroxide, uses 1310-73-2, Sodium hydroxide, uses 1312-76-1, Potassium silicate 6834-92-0, Sodium metasilicate 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 85334-85-6D, Dimethoxycyclohexane, reaction products with ethylene glycol 115111-30-3, Acrylonitrile-p-hydroxyphenyl methacrylamide-methyl methacrylate copolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (development of photosensitive lithog. plate using solid alkaline developer)

IT 3119-93-5, 3-Ethyl-2-methylbenzothiazolium iodide 108961-97-3 134127-48-3  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (dye; development of photosensitive lithog. plate using solid alkaline developer)

IT 93641-24-8  
 RL: CAT (Catalyst use); USES (Uses)  
 (**photoacid** generator; development of photosensitive lithog. plate using solid alkaline developer)

IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and polymerization of)

IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, Methacrylic acid, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of aminosulfonylphenyl methacrylamide)

L12 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:570084 CAPLUS

DN 140:225645

ED Entered STN: 25 Jul 2003

TI Nanocomposite resist for low-voltage electron beam lithography (LVEBL)

AU Ali, Mohammad Azam; Gonsalves, Kenneth E.; Agrawal, Ankur; Jeyakumar, Augustin; Henderson, Clifford L.  
 CS Department of Chemistry & NanoTech. Research Lab., Cameron Applied Research Center, Univ. of North Carolina, Charlotte, NC, 28223, USA  
 SO Proceedings of SPIE-The International Society for Optical Engineering (2003), 5039(Pt. 1, Advances in Resist Technology and Processing XX), 442-452  
 CODEN: PSISDG; ISSN: 0277-786X  
 PB SPIE-The International Society for Optical Engineering  
 DT Journal  
 LA English  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 AB A novel chemical amplified resist (CAR) was synthesized incorporating a **photoacid** generating (PAG) moiety, etch resistant nanoparticle, and various acrylated monomers. The addition of acrylated monomers was found to promote good film formation and to improve film adhesion. Directly tethering the nanoparticle into the polymer increases the etch performance of the resist and helps avoid any potential issues with phase separation of components in the resist film. The PAG in these materials is also directly incorporated into the resist backbone. It has been shown that these materials display enhanced sensitivity and contrast using LVEBL. This paper will discuss the material characteristics and lithog. performance of these materials using 2 keV, 10 KeV, and 20 KeV electron beam (EB) exposure. For example, these materials have demonstrated an extremely high sensitivity of only 0.6  $\mu\text{C}/\text{cm}^2$  at 2 KeV. Contrast and sensitivity data along with preliminary imaging results will be presented for these materials. Initial imaging results at 20 keV are promising. Achieving similar resolution at low keV also appears to be possible with this material. The trade-off between sensitivity and resolution will also be presented for different electron beam accelerating potentials. Etch resistance and selectivity of this material will also be studied and compared to PHOST and **novolak** based resists. It will be demonstrated that such materials show great promise for advanced resist applications in a variety of next generation lithog. (NGL) applications including electron beam lithog.  
 ST nanocomposite chem amplified resist electron beam lithog  
 IT Surface roughness  
 (chemical amplified resist for low-voltage electron-beam lithog. based on copolymer incorporating **photoacid** generating groups and etch resistant nanoparticle and various acrylated monomers)  
 IT Electron beam resists  
 (chemical amplified; chemical amplified resist for low-voltage electron-beam lithog. based on copolymer incorporating **photoacid** generating groups and etch resistant nanoparticle and various acrylated monomers)  
 IT Silsesquioxanes  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (methacrylate derivs., polymers; chemical amplified resist for low-voltage electron-beam lithog. based on copolymer incorporating **photoacid** generating groups and etch resistant nanoparticle and various acrylated monomers)  
 IT **79-41-4D**, Methacrylic acid, oligosilsesquioxane derivative esters, polymers with methacrylic acid and methacrylate esters containing alkyl- or sulfonium groups **79-41-4D**, Methacrylic acid, polymers with methacrylate esters containing oligosilsesquioxane- or alkyl- or sulfonium groups 80-62-6D, Methyl methacrylate, polymers with methacrylic acid and methacrylates containing oligosilsesquioxane- or alkyl- or sulfonium groups 585-07-9D, tert-Butyl methacrylate, polymers with methacrylic acid and methacrylates containing oligosilsesquioxane- or alkyl- or sulfonium groups 352455-54-0D, polymers with methacrylic acid and its esters containing oligosilsesquioxane- or alkyl groups  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (chemical amplified resist for low-voltage electron-beam lithog. based on

copolymer incorporating **photoacid** generating groups and etch resistant nanoparticle and various acrylated monomers)

IT 75-59-2, Tetramethylammonium hydroxide  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (developer; chemical amplified resist for low-voltage electron-beam lithog. based on copolymer incorporating **photoacid** generating groups and etch resistant nanoparticle and various acrylated monomers)

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD

- RE
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  - (2) Allen, R; Polym Mater, Sci & Eng 1989, V61, P185 CAPLUS
  - (3) Anon; LEEPL Magazine- Next Generation Low-Cost Electron Beam Lithography Fabrication Technology, [http://www.sony.net/Products/SC-HP/CXPAL/CXNEWS-29/PDF/Mask\\_f.Pdf](http://www.sony.net/Products/SC-HP/CXPAL/CXNEWS-29/PDF/Mask_f.Pdf) 2002
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  - (5) Gonsalves, K; Adv Mater 2001, V13(9), P770
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  - (13) Stewart, M; Encyclopedia of Materials: Science & Technology 2001, P6973
  - (14) Sumitani, H; private communication 2002
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  - (16) Wu, H; Adv Funct Mater 2001, V11(4), P271 CAPLUS

L12 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2000:822998 CAPLUS  
 DN 133:367847  
 ED Entered STN: 24 Nov 2000  
 TI Photosensitive resin composition containing modified epoxy resin  
 IN Ohtsuki, Nobuaki  
 PA Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM G03F007-038  
 ICS C08G059-62; C08L063-10; G03F007-027; G03F007-032  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000321769	A2	20001124	JP 1999-126333	19990506
PRAI	JP 1999-126333		19990506		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2000321769	ICM	G03F007-038
	ICS	C08G059-62; C08L063-10; G03F007-027; G03F007-032
	IPCI	G03F0007-038 [ICM,7]; C08G0059-62 [ICS,7]; C08L0063-10 [ICS,7]; G03F0007-027 [ICS,7]; G03F0007-032 [ICS,7]
	IPCR	C08G0059-00 [I,C*]; C08G0059-62 [I,A]; C08L0063-00 [I,C*]; C08L0063-10 [I,A]; G03F0007-027 [I,A]; G03F0007-027 [I,C*]; G03F0007-032 [I,A]; G03F0007-032 [I,C*]; G03F0007-038 [I,A]; G03F0007-038 [I,C*]

AB The title resin composition, comprising a modified epoxy resin, a photoradical polymerization initiator, and a **photoacid** generator, employs, as the modified epoxy resin, a product obtained by the reaction of an epoxy resin having  $\geq 2$  epoxy groups in average in its mol with an alc. OH-containing phenolic compound and an unsatd. monobasic acid in a ratio of  $< 1$  mol in the



total of the phenolic compound and acid to 1 chemical equiv of the epoxy group of the resin. A cured coating film showing good adhesion to substrate, chemical, thermal, and water resistance is obtained therefrom.

ST photoresist modified epoxy resin; acid generator photopolymn initiator photoresist

IT Phenolic resins, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (epoxy, **novolak**; photoresist composition containing modified epoxy resin, photopolymn. initiator, and acid generator)

IT Epoxy resins, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (phenolic, **novolak**; photoresist composition containing modified epoxy resin, photopolymn. initiator, and acid generator)

IT Photoresists  
 (photoresist composition containing modified epoxy resin, photopolymn. initiator, and acid generator)

IT 82799-44-8, Kayacure DETX  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (acid generator; photoresist composition containing modified epoxy resin, photopolymn. initiator, and acid generator)

IT 79-10-7DP, Acrylic acid, reaction products with epoxy resin  
 85-43-8DP, Tetrahydrophthalic anhydride, reaction products with epoxy resin 501-94-0DP, reaction products with epoxy resin 145269-05-2DP, ESCN 195XHH, reaction products with hydroxyphenyl ethanol and acrylic acid  
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (photoresist composition containing modified epoxy resin, photopolymn. initiator, and acid generator)

IT 29570-58-9, Dipentaerythritol hexaacrylate  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (photoresist composition containing modified epoxy resin, photopolymn. initiator, and acid generator)

L12 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1991:32954 CAPLUS

DN 114:32954

ED Entered STN: 26 Jan 1991

TI Application of silyl ether and silyl ester polymers for chemical amplification system

AU Aoai, Toshiaki; Aotani, Yoshimasa; Umehara, Akira; Kokubo, Tadayoshi

CS Fuji Photo Film Co., Ltd., Shizuoka, 421-03, Japan

SO Journal of Photopolymer Science and Technology (1990), 3(3), 389-400  
 CODEN: JSTEEW; ISSN: 0914-9244

DT Journal

LA English

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

AB A chemical amplification system using silyl ether I (R = -CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>-, -(CH<sub>2</sub>CH<sub>2</sub>O)<sub>4</sub>-, -CH<sub>2</sub>CH<sub>2</sub>OCONH-C<sub>6</sub>H<sub>3</sub>(Me)-NHCOOCH<sub>2</sub>CH<sub>2</sub>- and silyl ester polymers II (R<sub>1</sub> = R<sub>2</sub> = Me, R<sub>3</sub> = Me, Pr, sec-Bu, tert-Bu or R<sub>1</sub> = R<sub>2</sub> = R<sub>3</sub> = Et, iso-Pr) as acid generator compds. was investigated. Disulfones, p-ClC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>SO<sub>2</sub>R<sub>4</sub> (R<sub>4</sub> = p-MeC<sub>6</sub>H<sub>4</sub>, α-naphthyl) as **photoacid** generators were also investigated. The chemical amplification composition consisting of **novolak** resin, disulfone and silicone polymer as dissoln. inhibitor gave a deep-UV, pos., high-speed photoresist.

ST chem amplification photoresist sulfone silicone **novolak**

IT Poly(arylenealkylenes)  
 Polyamides, uses and miscellaneous  
 Polyoxyalkylenes, uses and miscellaneous  
 RL: USES (Uses)  
 (di-Me siloxane-, chemical-amplification photoresist based on)

IT Siloxanes and Silicones, uses and miscellaneous  
 RL: USES (Uses)  
 (di-Me, polyamide-, chemical-amplification photoresist based on)

IT Siloxanes and Silicones, uses and miscellaneous

RL: USES (Uses)  
 (di-Me, polyarylenealkylene-, chemical-amplification photoresist based on)  
 IT Siloxanes and Silicones, uses and miscellaneous  
 RL: USES (Uses)  
 (di-Me, polyoxyalkylene-, chemical-amplification photoresist based on)  
 IT Resists  
 (photo-, chemical-amplification, silyl ether and silyl ester polymers for)  
 IT 91222-47-8 131391-66-7 131391-83-8  
 RL: USES (Uses)  
 (chemical amplification photoresist composition containing acid  
 photogenerator of)  
 IT 79-41-4D, Methacrylic acid, silyl esters, polymers  
 RL: USES (Uses)  
 (chemical-amplification photoresist based on)

=> D HIS

(FILE 'HOME' ENTERED AT 19:14:15 ON 23 JUN 2006)

FILE 'REGISTRY' ENTERED AT 19:14:32 ON 23 JUN 2006

L1 1 S METHACRYLIC ACID/CN  
 L2 46112 S 79-41-4/CRN  
 L3 0 S ACRYLIC ACID/CRN  
 L4 1 S ACRYLIC ACID/CN  
 L5 0 S 79/10/7/CRN  
 L6 59563 S 79-10-7/CRN

FILE 'CAPLUS' ENTERED AT 19:15:44 ON 23 JUN 2006

L7 26806 S (NOVOLAK OR NOVALAK OR NOVOLAC OR NOVOLAK) OR ((PHENOL CRESOL  
 L8 53490 S L1 OR L4  
 L9 592 S L8 AND L7  
 L10 2 S L9 AND ACETAL  
 L11 0 S L9 AND POLYACETAL  
 L12 6 S L9 AND PHOTOACID

=> S L11 AND PHOTO?

1410687 PHOTO?

L13 0 L11 AND PHOTO?

=> S L9 AND PHOTO?

1410687 PHOTO?

L14 319 L9 AND PHOTO?

=> S L14 AND POSITIV?

101303 POSITIV?

L15 16 L14 AND POSITIV?

=> D ALL 1-16

L15 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2006:318362 CAPLUS  
 DN 144:379236  
 ED Entered STN: 06 Apr 2006  
 TI **Positive**-working chemically amplified **photoresist**  
 composition for manufacturing liquid crystal devices  
 IN Murayama, Toshikazu; Ito, Katsuhiko; Komai, Masatsugu; Kato, Yoshiyuki;  
 Numazaki, Ryo  
 PA Kyowa Hakko Chemical Co., Ltd., Japan  
 SO PCT Int. Appl., 45 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)

Section cross-reference(s): 35

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006035926	A1	20060406	WO 2005-JP18091	20050930
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
PRAI	JP 2004-285750	A	20040930		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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WO 2006035926	IPCI	G03F0007-039 [I,A]; G02F0001-13 [I,A]
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AB The invention relates to a chemical amplified pos. resist composition for liquid

crystal devices, characterized by comprising (A) a polymer having groups represented by the general formula (R1)(R2)CH-CH(-X-CH3)(-O-R3) wherein R1, R2 and R3 are each independently substituted or unsubstituted alkyl; substituted or unsubstituted aryl, or the like; and X is O or NR (wherein R is hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted aryl, or substituted or unsubstituted aralkyl), (B) a compound capable of generating an acid on being irradiated with a radiation, and (C) an organic solvent.

ST pos amplified **photoresist** compn liq crystal polymer

IT Liquid crystal displays

**Positive photoresists**

(pos. **photoresist** composition for manufacturing liquid crystal devices)

IT 27029-76-1DP, m-Cresol-p-cresol-formaldehyde copolymer, reaction product with 1-chloro-2-methylpropane derivative

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(EP 4000 B; pos. **photoresist** composition for manufacturing liquid crystal devices)

IT **79-41-4**, Methacrylic acid, reactions 17574-84-4, 1-Methoxy-2-methylpropene

RL: RCT (Reactant); RACT (Reactant or reagent)

(pos. **photoresist** composition for manufacturing liquid crystal devices)

IT 487048-12-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(pos. **photoresist** composition for manufacturing liquid crystal devices)

IT 5760-38-3DP, reaction product with **novolak** resin 22398-94-3DP, reaction product with poly(hydroxystyrene) 59269-51-1DP,

Poly(hydroxystyrene), reaction product with propene derivative 882052-19-9P 882052-20-2DP, reaction product with **novolak** resin

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pos. **photoresist** composition for manufacturing liquid crystal devices)

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Clariant International Ltd; WO 03107093 A2 2003 CAPLUS

(2) Clariant International Ltd; EP 1516229 A1 2003 CAPLUS

(3) Clariant International Ltd; US 20030235775 A1 2003

(4) Fuji Photo Film Co Ltd; JP 2003330172 A 2003 CAPLUS

(5) Kyowa Yuka Co Ltd; WO 03006407 A1 2003 CAPLUS

(6) Kyowa Yuka Co Ltd; EP 1415968 A1 2003 CAPLUS

- (7) Kyowa Yuka Co Ltd; US 20040181097 A1 2003
- (8) Kyowa Yuka Co Ltd; EP 1548498 A1 2004 CAPLUS
- (9) Kyowa Yuka Co Ltd; WO 2004019131 A1 2004 CAPLUS
- (10) Kyowa Yuka Co Ltd; JP 200475864 A 2004
- (11) Shin-Etsu Chemical Co Ltd; EP 1378795 A1 2004 CAPLUS
- (12) Shin-Etsu Chemical Co Ltd; US 20040023153 A1 2004
- (13) Shin-Etsu Chemical Co Ltd; JP 200445448 A 2004
- (14) Shin-Etsu Chemical Co Ltd; US 20050079446 A1 2005 CAPLUS
- (15) Shin-Etsu Chemical Co Ltd; JP 2005133065 A 2005 CAPLUS
- (16) Tokyo Ohka Kogyo Co Ltd; US 2002106580 A1 2002 CAPLUS
- (17) Tokyo Ohka Kogyo Co Ltd; JP 2002156764 A 2002 CAPLUS

L15 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1003682 CAPLUS

DN 143:295603

ED Entered STN: 16 Sep 2005

TI Resin compositions with good pattern resolution and pattern adhesion for **positive** type spacers

IN Hashiguchi, Hiroyuki; Okajima, Keiichi; Fujiwara, Satoru; Ohata, Masashi; Matsumura, Akira

PA Nippon Paint Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G02F001-1339

ICS C08G085-00; G09F009-00; G09F009-30

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005250203	A2	20050915	JP 2004-61770	20040305
PRAI	JP 2004-61770		20040305		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2005250203	ICM	G02F001-1339
	ICS	C08G085-00; G09F009-00; G09F009-30
	IPCI	G02F0001-1339 [ICM,7]; G02F0001-13 [ICM,7,C*]; C08G0085-00 [ICS,7]; G09F0009-00 [ICS,7]; G09F0009-30 [ICS,7]
	IPCR	C08G0085-00 [I,A]; C08G0085-00 [I,C*]; G02F0001-13 [I,C*]; G02F0001-1339 [I,A]; G09F0009-00 [I,A]; G09F0009-00 [I,C*]; G09F0009-30 [I,A]; G09F0009-30 [I,C*]
	FTERM	2H089/LA09; 2H089/MA04X; 2H089/NA05; 2H089/NA14; 2H089/QA12; 2H089/QA14; 2H089/SA17; 4J031/BD21; 4J031/BD23; 4J031/BD28; 4J031/CA06; 4J031/CA85; 4J031/CC05; 5C094/AA02; 5C094/AA06; 5C094/AA43; 5C094/BA43; 5C094/EC03; 5G435/AA01; 5G435/AA14; 5G435/AA17; 5G435/BB12; 5G435/KK00

AB Title compns. comprise (A) alkali-soluble resins, (B) diazonaphthoquinone compds., and (C) heat crosslinkers. Thus, Me methacrylate 247, styrene 8, isobornyl methacrylate 20, methacrylic acid 49, and glycidyl methacrylate-salicylic acid adduct 87 parts were polymerized to give a copolymer with glass transition temperature 110° and acid value 81, 50 parts of which was mixed with a diazonaphthoquinone type compound 30, B Vestanat 1358 20, and Megafac R 8 (surfactant) 0.2 parts, applied on a glass substrate, dried at 80° for 20 min, irradiated through a **photomask**, developed using a tetramethylammonium hydroxide solution, washed, and dried to give a pattern, showing good resolution and pattern adhesion.

ST resin compn pattern resoln adhesion pos spacer; Vestanat crosslinked

acrylic polymer diazonaphthoquinone type compd compn

IT Phenolic resins, preparation  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (epoxy, cresol-; resin compns. with good pattern resolution and pattern adhesion for pos. type spacers)

IT Phenolic resins, preparation  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (**novolak**, cresol-based, polymers with epoxy resins; resin compns. with good pattern resolution and pattern adhesion for pos. type spacers)

IT Liquid crystal displays  
 (panels; resin compns. with good pattern resolution and pattern adhesion for pos. type spacers)

IT Epoxy resins, preparation  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (phenolic, cresol-; resin compns. with good pattern resolution and pattern adhesion for pos. type spacers)

IT **Positive photoresists**  
 (resin compns. with good pattern resolution and pattern adhesion for pos. type spacers)

IT Aminoplasts  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (resin compns. with good pattern resolution and pattern adhesion for pos. type spacers)

IT Acrylic polymers, uses  
 Phenolic resins, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (resin compns. with good pattern resolution and pattern adhesion for pos. type spacers)

IT 9003-08-1DP, Cymel 701, polymers with acrylic polymers  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (Cymel C 300; resin compns. with good pattern resolution and pattern adhesion for pos. type spacers)

IT 69-72-7DP, o-Hydroxybenzoic acid, reaction products with epoxy compds., acid, and diazonaphthoquinone disulfonyl chloride 79-09-4DP, Propionic acid, reaction products with epoxy compds., acid, and diazonaphthoquinone disulfonyl chloride 3454-29-3DP, Trimethylolpropane triglycidyl ether, reaction products with acids and diazonaphthoquinone disulfonyl chloride 20584-13-8DP, 1,2-Diazonaphthoquinone-5-sulfonyl chloride, reaction products with epoxy compds. and acids  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses) (**photosensitizer**; resin compns. with good pattern resolution and pattern adhesion for pos. type spacers)

IT 69-72-7DP, Salicylic acid, adducts with glycidyl methacrylate, polymers with acrylic monomers and crosslinkers **79-41-4DP**, Methacrylic acid, polymers with acrylic monomers and crosslinkers 80-62-6DP, Methyl methacrylate, polymers with acrylic monomers and crosslinkers 100-42-5DP, Styrene, polymers with acrylic monomers and crosslinkers 106-91-2DP, Glycidyl methacrylate, adducts with salicylic acid, polymers with acrylic monomers and crosslinkers 461-58-5DP, Dicyandiamide, polymers with epoxy resins and phenolic resins 7534-94-3DP, Isobornyl methacrylate, polymers with acrylic monomers and crosslinkers 101706-82-5DP, Epo Tohto YDCN 703, polymers with phenolic resins 131360-80-0DP, Vestanat B 1358, polymers with acrylic polymers  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (resin compns. with good pattern resolution and pattern adhesion for pos. type spacers)

L15 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2004:739289 CAPLUS  
 DN 141:251468  
 ED Entered STN: 10 Sep 2004  
 TI Evaluation of images of IR laser-sensitive **positively** working  
 presensitized lithographic plate and its quality control  
 IN Aono, Koichiro; Kobayashi, Fumikazu  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 27 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM G03F007-26  
 ICS G03F007-00; G03F007-004; G03F007-032; G03F007-30  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004252222	A2	20040909	JP 2003-43297	20030220
PRAI	JP 2003-43297		20030220		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004252222	ICM	G03F007-26
	ICS	G03F007-00; G03F007-004; G03F007-032; G03F007-30
	IPCI	G03F0007-26 [ICM,7]; G03F0007-00 [ICS,7]; G03F0007-004 [ICS,7]; G03F0007-032 [ICS,7]; G03F0007-30 [ICS,7]
	IPCR	G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-032 [I,A]; G03F0007-032 [I,C*]; G03F0007-26 [I,A]; G03F0007-26 [I,C*]; G03F0007-30 [I,A]; G03F0007-30 [I,C*]
	FTERM	2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/CB13; 2H025/CB14; 2H025/CB17; 2H025/CB29; 2H025/CB52; 2H025/CC20; 2H025/FA03; 2H025/FA14; 2H025/FA17; 2H096/AA08; 2H096/BA16; 2H096/BA20; 2H096/EA04; 2H096/GA08; 2H096/GB10; 2H096/LA16

AB The evaluation process involves (A) a step of preparation of a standard developer liquid-treated lithog. plate by light exposure in conditions of screen line number 80-300 lines/in. (80-300 lines/2.54 cm) and formation of halftones with area ratio 30-70% and subsequent development with a standard developer liquid for a lithog. plate bearing a **photosensitive** layer formed on a support and containing an aqueous alkali-soluble resin and a light heat converting compound, (B) preparation of an objective developer liquid-treated lithog. plate by conditions same as those in the step A, except that the development is run by using a developer to be evaluated, and (C) a step of comparing halftone area ratios in the standard developer-treated lithog. plate and the objective developer-treated lithog. plate. The quality control process involves the above-mentioned steps A, B, and C, followed by (D) a step of modulation of exposure and/or development conditions when the difference between the halftone area ratios are above the predetd. value. Preferably, after the step D, a lithog. plate is prepared under the modulated conditions for exposure and/or development, is regarded as an objective developer liquid-treated lithog. plate in the step B, and is subjected to steps of C and D for  $\geq 1$  times.

ST IR laser pos presensitized lithog plate evaluation; exposure condition IR laser pos presensitized lithog plate; development condition IR laser pos presensitized lithog plate

IT Polyoxyalkylenes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (evaluation of images of IR laser-sensitive pos. working presensitized lithog. plate and its quality control)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (novolak, cresol-based, **photosensitive** layer component; evaluation of images of IR laser-sensitive pos. working presensitized lithog. plate and its quality control)

IT Fluoropolymers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (**photosensitive** layer component; evaluation of images of IR laser-sensitive pos. working presensitized lithog. plate and its quality control)

IT Lithographic plates  
 (presensitized, pos.-working; evaluation of images of IR laser-sensitive pos. working presensitized lithog. plate and its quality control)

IT 50-70-4, Sorbit, uses 77-92-9, Citric acid, uses 1310-73-2, Sodium hydroxide, uses 1312-76-1, Potassium silicate 25322-68-3, Polyethylene glycol 753021-88-4  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (aqueous alkali developer component; evaluation of images of IR laser-sensitive pos. working presensitized lithog. plate and its quality control)

IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (evaluation of images of IR laser-sensitive pos. working presensitized lithog. plate and its quality control)

IT 63-74-1, p-Aminobenzenesulfonamide **79-41-4**, Methacrylic acid, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (evaluation of images of IR laser-sensitive pos. working presensitized lithog. plate and its quality control)

IT 753021-86-2  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (evaluation of images of IR laser-sensitive pos. working presensitized lithog. plate and its quality control)

IT 56347-72-9 117283-53-1, Victoria Pure Blue BOH 1-naphthalenesulfonate 134127-48-3 154924-50-2  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (light heat converter, **photosensitive** layer component; evaluation of images of IR laser-sensitive pos. working presensitized lithog. plate and its quality control)

IT 124996-93-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (**photosensitive** layer component; evaluation of images of IR laser-sensitive pos. working presensitized lithog. plate and its quality control)

IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (**photosensitive** layer component; evaluation of images of IR laser-sensitive pos. working presensitized lithog. plate and its quality control)

IT 37321-70-3, JIS 1050  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (support; evaluation of images of IR laser-sensitive pos. working presensitized lithog. plate and its quality control)

IT 216861-97-1  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (undercoat component; evaluation of images of IR laser-sensitive pos. working presensitized lithog. plate and its quality control)

ED Entered STN: 16 Jul 2004  
 TI **Positive** type **photosensitive** image-forming materials  
 and compositions workable with an infrared laser  
 IN Miyake, Hideo; Kawauchi, Ikuo  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM B41M005-36  
 ICS B41C001-10; G03F007-004  
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1437232	A2	20040714	EP 2004-8648	19981016
	EP 1437232	A3	20040728		
	R: DE, GB				
	JP 11119418	A2	19990430	JP 1997-285754	19971017
	JP 3771694	B2	20060426		
	EP 909657	A2	19990421	EP 1998-119634	19981016
	EP 909657	A3	19990519		
	EP 909657	B1	20030618		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	EP 1258369	A2	20021120	EP 2002-15513	19981016
	EP 1258369	A3	20021204		
	EP 1258369	B1	20050330		
	R: DE, GB				
	JP 11218914	A2	19990810	JP 1998-322334	19981112
	JP 2002196491	A2	20020712	JP 2001-376180	19981112
	JP 2002251003	A2	20020906	JP 2001-398410	19981112
	US 6340551	B1	20020122	US 1999-421535	19991020
	US 2002081522	A1	20020627	US 2001-993634	20011127
	JP 2004145370	A2	20040520	JP 2004-45309	20040220
	JP 2004145371	A2	20040520	JP 2004-45310	20040220
	JP 2004171029	A2	20040617	JP 2004-45308	20040220
	JP 2004157573	A2	20040603	JP 2004-57884	20040302
	JP 2004192011	A2	20040708	JP 2004-57885	20040302
	JP 2004192012	A2	20040708	JP 2004-57886	20040302
PRAI	JP 1997-285754	A	19971017		
	JP 1997-313778	A	19971114		
	EP 1998-119634	A3	19981016		
	EP 2002-15513	A3	19981016		
	US 1998-173719	A3	19981016		
	JP 1998-322334	A3	19981112		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1437232	ICM	B41M005-36
	ICS	B41C001-10; G03F007-004
	IPCI	B41M0005-36 [ICM,7]; B41C0001-10 [ICS,7]; G03F0007-004 [ICS,7]
JP 11119418	ECLA	B41C001/10A; B41M005/36S
	IPCI	G03F0007-004 [I,A]; G03F0007-039 [I,A]; B41N0001-14 [I,A]; B41N0001-12 [I,C*]
	IPCR	B41N0001-12 [I,C*]; B41N0001-14 [I,A]; G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]
EP 909657	IPCI	B41M0005-36 [ICM,6]; B41C0001-10 [ICS,6]; G03F0007-004 [ICS,6]
	IPCR	B41C0001-10 [I,A]; B41C0001-10 [I,C*]; B41M0005-36 [I,A]; B41M0005-36 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]



EP 1258369	ECLA	B41C001/10A; B41M005/36S; G03F007/004D
	IPCI	B41M0005-36 [ICM,6]; B41C0001-10 [ICS,6]; G03F0007-004 [ICS,6]
JP 11218914	ECLA	B41C001/10A
	IPCI	G03F0007-032 [ICM,6]; B41N0001-14 [ICS,6]; B41N0001-12 [ICS,6,C*]; G03F0007-00 [ICS,6]; G03F0007-004 [ICS,6]
	IPCR	B41N0001-12 [I,C*]; B41N0001-14 [I,A]; G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-032 [I,A]; G03F0007-032 [I,C*]
JP 2002196491	IPCI	G03F0007-033 [ICM,7]; B41N0001-14 [ICS,7]; B41N0001-12 [ICS,7,C*]; G03F0007-004 [ICS,7]; G03F0007-095 [ICS,7]; G03F0007-11 [ICS,7]; G03F0007-00 [ICS,7]; G03F0007-039 [ICS,7]
JP 2002251003	IPCI	G03F0007-00 [ICM,7]; G03F0007-004 [ICS,7]; G03F0007-032 [ICS,7]; G03F0007-11 [ICS,7]
US 6340551	IPCI	G03C0001-52 [ICM,7]
	IPCR	B41C0001-10 [I,A]; B41C0001-10 [I,C*]; B41M0005-36 [I,A]; B41M0005-36 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]
	NCL	430/192.000; 430/156.000; 430/270.100; 430/281.100; 430/905.000; 430/944.000
	ECLA	B41C001/10A; B41M005/36S; G03F007/004D
US 2002081522	IPCI	G03F0007-038 [ICM,7]
	IPCR	B41C0001-10 [I,A]; B41C0001-10 [I,C*]; B41M0005-36 [I,A]; B41M0005-36 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]
	NCL	430/270.100
JP 2004145370	ECLA	B41C001/10A; B41M005/36S; G03F007/004D
	IPCI	G03F0007-38 [ICM,7]; G03F0007-095 [ICS,7]; G03F0007-00 [ICS,7]
	IPCR	G03F0007-00 [N,A]; G03F0007-00 [N,C*]; G03F0007-095 [I,A]; G03F0007-095 [I,C*]; G03F0007-38 [I,A]; G03F0007-38 [I,C*]
	FTERM	2H025/AA01; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03; 2H025/CB29; 2H025/CB41; 2H025/CB52; 2H025/CC20; 2H025/EA04; 2H025/EA10; 2H025/FA03; 2H025/FA17; 2H096/AA07; 2H096/BA16; 2H096/BA20; 2H096/CA12; 2H096/CA20; 2H096/EA04; 2H096/GA08; 2H096/JA02; 2H096/KA02
	IPCI	G03F0007-004 [ICM,7]; G03F0007-00 [ICS,7]; G03F0007-095 [ICS,7]
JP 2004145371	IPCR	G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-095 [I,A]; G03F0007-095 [I,C*]
	FTERM	2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03; 2H025/CB41; 2H025/CB52; 2H025/CC20; 2H025/DA13; 2H025/FA03; 2H025/FA17; 2H096/AA08; 2H096/BA16; 2H096/BA20; 2H096/CA20; 2H096/EA04; 2H096/GA08; 2H096/JA04
	IPCI	G03F0007-033 [ICM,7]; B32B0027-42 [ICS,7]; G03F0007-00 [ICS,7]; G03F0007-032 [ICS,7]; G03F0007-11 [ICS,7]
	IPCR	B32B0027-42 [I,A]; B32B0027-42 [I,C*]; G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-032 [I,A]; G03F0007-032 [I,C*]; G03F0007-033 [I,A]; G03F0007-033 [I,C*]; G03F0007-11 [I,A]; G03F0007-11 [I,C*]
JP 2004171029	FTERM	2H025/AA01; 2H025/AA04; 2H025/AA06; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/BG00; 2H025/CB14; 2H025/CB29; 2H025/CB41; 2H025/CB45; 2H025/CC11; 2H025/FA17; 2H096/AA06; 2H096/BA09; 2H096/CA05; 2H096/EA04; 2H096/GA08; 4F100/AK02B; 4F100/AK03B; 4F100/AK12B; 4F100/AK21B; 4F100/AK24B; 4F100/AK25B; 4F100/AK26B; 4F100/AK27B; 4F100/AK34C; 4F100/AK62B; 4F100/AK66B; 4F100/AL01B; 4F100/AT00A; 4F100/BA03; 4F100/BA07; 4F100/BA10A; 4F100/BA10C;

JP 2004157573 IPCI 4F100/EH46; 4F100/GB41; 4F100/JK01; 4F100/YY00B  
G03F0007-11 [ICM,7]; G03F0007-004 [ICS,7]; G03F0007-00  
[ICS,7]  
IPCR G03F0007-00 [N,A]; G03F0007-00 [N,C\*]; G03F0007-004  
[I,A]; G03F0007-004 [I,C\*]; G03F0007-11 [I,A];  
G03F0007-11 [I,C\*]  
FTERM 2H025/AA01; 2H025/AA12; 2H025/AB03; 2H025/AC08;  
2H025/AD03; 2H025/CB29; 2H025/CB52; 2H025/CC20;  
2H025/DA36; 2H025/FA03; 2H025/FA17; 2H096/AA08;  
2H096/BA16; 2H096/BA20; 2H096/CA05; 2H096/EA04;  
2H096/GA08

JP 2004192011 IPCI G03F0007-00 [ICM,7]; G03F0007-004 [ICS,7]; G03F0007-095  
[ICS,7]  
IPCR G03F0007-00 [I,A]; G03F0007-00 [I,C\*]; G03F0007-004  
[I,A]; G03F0007-004 [I,C\*]; G03F0007-095 [I,A];  
G03F0007-095 [I,C\*]  
FTERM 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03;  
2H025/CB28; 2H025/CB45; 2H025/CB52; 2H025/CC03;  
2H025/CC20; 2H025/DA36; 2H025/EA04; 2H025/FA03;  
2H025/FA17; 2H096/AA07; 2H096/AA08; 2H096/BA16;  
2H096/BA20; 2H096/CA05; 2H096/CA12; 2H096/EA04;  
2H096/GA08

JP 2004192012 IPCI G03F0007-004 [ICM,7]; G03F0007-032 [ICS,7]  
IPCR G03F0007-004 [I,A]; G03F0007-004 [I,C\*]; G03F0007-032  
[I,A]; G03F0007-032 [I,C\*]  
FTERM 2H025/AA04; 2H025/AA12; 2H025/AB03; 2H025/AC08;  
2H025/AD03; 2H025/CB14; 2H025/CB29; 2H025/CB45;  
2H025/CC04; 2H025/CC11; 2H025/DA13; 2H025/FA10;  
2H025/FA17

AB The materials comprise: a substrate; a layer (A) containing  $\geq 50\%$  a copolymer derived from  $\geq 10$  mol% monomers selected from: (a-1) compds. having a sulfonamide group wherein at least 1 H atom is linked to a N atom, (a-2) compds. having an active imino group of  $-C(O)NHSO_2-$  and (a-3) compds. selected from acrylamide, methacrylamide, acrylate, methacrylate and hydroxystyrene, which resp. have a phenolic hydroxyl group; and a layer (B) containing  $\geq 50\%$  an aqueous alkali solution-soluble resin

having a phenolic hydroxyl group. The layer (A) and the layer (B) are laminated on the substrate in that order. At least the layer (B) contains a compound which generates heat upon absorbing light. An image forming material comprises following compound  $R_1SO_2SO_2R_2$  or  $R_1-SO_2-R_2$  wherein  $R_1$  and  $R_2$  may be the same or different, and  $R_1$  and  $R_2$  represent a substituted or non-substituted alkyl, alkenyl or aryl group. The materials and compns. have excellent stability of sensitivity with regard to concentration of a developing solution, i.e., have excellent development latitude and are useful for offset printing plate production. Thus, polymerizing N-(p-aminosulfonylphenyl)methacrylamide with Et methacrylate gave a copolymer which at 0.75 g was combined with a cyanine dye 0.04, p-toluenesulfonic acid 0.002, tetrahydrophthalic anhydride 0.05, a dye 0.015, Megafac F 177 (F-containing surfactant) 0.02,  $\gamma$ -butyrolactone 8, MEK 8 and 1-methoxy-2-propanol 7 g to give a solution (A). Coating the A on a cleaned, anodized and  $\beta$ -alanine-treated surface of an Al plate, drying, coating a solution containing m,p-cresol **novolak** 0.25, cyanine dye 0.05, n-dodecyl stearate 0.02, Megafac F 177 0.05, MEK 7 and 1-methoxy-2-propanol 7 g on top and drying gave a plate precursor patternable by IR laser radiation.

ST IR laser pos working **photoresist** sulfonamide resin; alk sol resin IR laser pos working **photoresist**; plating making pos working **photoresist** alkali sol resin

IT IR lasers

#### Positive photoresists

Printing plates

(pos.-working **photoresist** materials and compns. workable with an IR laser and their use in plate making)

IT 7429-90-5, Aluminum, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (plate substrate; pos.-working **photoresist** materials and  
 compns. workable with an IR laser and their use in plate making)

IT 203179-80-0P, Ethyl methacrylate-N-(p-hydroxyphenyl)methacrylamide  
 copolymer 223561-59-9P, N-(p-Aminosulfonylphenyl)methacrylamide-ethyl  
 methacrylate copolymer 223561-61-3P, Acrylonitrile-N-(p-  
 aminosulfonylphenyl)acrylamide-methyl methacrylate copolymer  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
 (Properties); TEM (Technical or engineered material use); PREP  
 (Preparation); USES (Uses)  
 (pos.-working **photoresist** materials and compns. workable with  
 an IR laser and their use in plate making)

IT 9016-83-5, Cresol-formaldehyde copolymer 28391-39-1, p-Vinylbenzoic acid  
 polymer 51241-17-9, Triethyl(vinylbenzyl)ammonium chloride chloride  
 polymer 504413-05-2, Acrylonitrile-methyl methacrylate-N-(p-  
 toluenesulfonyl)methacrylamide copolymer  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
 engineered material use); USES (Uses)  
 (pos.-working **photoresist** materials and compns. workable with  
 an IR laser and their use in plate making)

IT 63-74-1, p-Aminobenzenesulfonamide **79-10-7**, Acrylic acid,  
 reactions **79-41-4**, Methacrylic acid, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (pos.-working **photoresist** materials and compns. workable with  
 an IR laser and their use in plate making)

L15 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:818011 CAPLUS

DN 139:330322

ED Entered STN: 17 Oct 2003

TI Isocyanate crosslinked imageable compositions

IN Mulligan, James

PA Kodak Polychrome Graphics, L.L.C., USA

SO U.S. Pat. Appl. Publ., 18 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM G03F007-023

ICS G03F007-021; G03F007-30

INCL 430190000; X43-019.1; X43-019.2; X43-019.3; X43-016.5; X43-017.6;  
 X43-032.6; X43-033.0; X43-027.01

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003194635	A1	20031016	US 2002-56212	20020124
	US 6783911	B2	20040831		
PRAI	US 2002-56212		20020124		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003194635	ICM	G03F007-023
	ICS	G03F007-021; G03F007-30
	INCL	430190000; X43-019.1; X43-019.2; X43-019.3; X43-016.5; X43-017.6; X43-032.6; X43-033.0; X43-027.01
	IPCI	G03F0007-023 [ICM,7]; G03F0007-021 [ICS,7]; G03F0007-016 [ICS,7,C*]; G03F0007-30 [ICS,7]
	IPCR	G03F0007-022 [I,A]; G03F0007-022 [I,C*]; G03F0007-023 [I,A]; G03F0007-023 [I,C*]; G03F0007-11 [N,A]; G03F0007-11 [N,C*]
	NCL	430/190.000
	ECLA	G03F007/022M; G03F007/023P

OS MARPAT 139:330322

AB The present invention provides a pos.-working imageable composition, which

includes a hydroxy functional resin comprising a covalently bound radiation sensitive group capable of increasing the solubility of the imageable composition in an alkaline developer upon exposure to radiation; and an isocyanate crosslinking agent. The present invention further provides an imageable element, which includes a substrate and an imageable composition according to the present invention coated on a surface of the substrate and a method of producing an imaged element according to the present invention. Also provided is a radiation sensitive hydroxy functional resin including a covalently bound radiation sensitive group capable of increasing solubility in an alkaline developer of an imageable composition derived therefrom upon exposure of the imageable composition to radiation.

ST isocyanate crosslinked **photoresist** compn imaging element

IT Acrylic polymers, uses  
Polyesters, uses  
Polyurethanes, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(hydroxy-containing; isocyanate crosslinked imageable composition for imaging element)

IT Crosslinking agents  
**Positive photoresists**  
(isocyanate crosslinked imageable composition for imaging element)

IT Phenolic resins, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(**novolak**, reaction products, naphthoquinone diazide sulfonic acid esters; isocyanate crosslinked imageable composition for imaging element)

IT Phenolic resins, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(resol; isocyanate crosslinked imageable composition for imaging element)

IT 68584-99-6, Posilux 2521  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(Posilux 2521; isocyanate crosslinked imageable composition for imaging element)

IT 548-62-9, Basic Violet 3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(crystal violet; isocyanate crosslinked imageable composition for imaging element)

IT 101-68-8, MDI 822-06-0, Hexamethylene diisocyanate 4098-71-9, Isophorone diisocyanate 26471-62-5, TDI 58067-42-8 613220-59-0, Trixene BI 7950 613220-60-3, Trixene BI 7960  
RL: MOA (Modifier or additive use); USES (Uses)  
(isocyanate crosslinked imageable composition for imaging element)

IT **79-10-7D**, Acrylic acid, esters, copolymers with vinylphenol 25086-36-6, N 13 31257-96-2D, Vinylphenol, copolymers with acrylate monomers 59269-51-1, Vinylphenol homopolymer 80296-78-2 223508-90-5, IH 1225 321966-55-6 613220-96-5, PD 646A  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(isocyanate crosslinked imageable composition for imaging element)

IT 3251-84-1, Victoria Blue FBR 3584-23-4 9070-36-4 41432-19-3 68900-98-1 69432-40-2 79723-43-6 114535-84-1 117482-71-0 121239-75-6, 4-Octyloxyphenylphenyliodonium hexafluoroantimonate 143084-48-4, N-Ethoxyisoquinolinium hexafluorophosphate 612843-84-2  
RL: TEM (Technical or engineered material use); USES (Uses)  
(isocyanate crosslinked imageable composition for imaging element)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; JP 55-045017 1980 CAPLUS

(2) Anon; JP 62-164049 1987 CAPLUS  
 (3) Anon; WO 9512837 1995 CAPLUS  
 (4) Anon; JP 20-00089451 2000 CAPLUS  
 (5) Anon; JP 20-00275834 2000 CAPLUS  
 (6) Hsieh; US 4189320 A 1980 CAPLUS  
 (7) Kurisaki; US 6372403 B1 2002 CAPLUS  
 (8) Nishino; US 6596150 B2 2003 CAPLUS  
 (9) Schupp; US 4579806 A 1986 CAPLUS

L15 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2002:955445 CAPLUS  
 DN 138:39737  
 ED Entered STN: 18 Dec 2002  
 TI Novel polyphenol compounds and their derivatives and resin compositions containing them  
 IN Otsuki, Nobuaki; Sugioka, Takao  
 PA Nippon Shokubai Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 18 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08G061-02  
 ICS C08F299-02; C08G059-62; G03F007-022; G03F007-023; G03F007-027; G03F007-028; H05K003-00  
 CC 35-7 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 42, 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002363262	A2	20021218	JP 2001-167724	20010604
PRAI	JP 2001-167724		20010604		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002363262	ICM	C08G061-02
	ICS	C08F299-02; C08G059-62; G03F007-022; G03F007-023; G03F007-027; G03F007-028; H05K003-00
	IPCI	C08G0061-02 [ICM,7]; C08G0061-00 [ICM,7,C*]; C08F0299-02 [ICS,7]; C08F0299-00 [ICS,7,C*]; C08G0059-62 [ICS,7]; C08G0059-00 [ICS,7,C*]; G03F0007-022 [ICS,7]; G03F0007-023 [ICS,7]; G03F0007-027 [ICS,7]; G03F0007-028 [ICS,7]; H05K0003-00 [ICS,7]
	IPCR	C08F0299-00 [I,C*]; C08F0299-02 [I,A]; C08G0059-00 [I,C*]; C08G0059-62 [I,A]; C08G0061-00 [I,C*]; C08G0061-02 [I,A]; G03F0007-022 [I,A]; G03F0007-022 [I,C*]; G03F0007-023 [I,A]; G03F0007-023 [I,C*]; G03F0007-027 [I,A]; G03F0007-027 [I,C*]; G03F0007-028 [I,A]; G03F0007-028 [I,C*]; H05K0003-00 [I,A]; H05K0003-00 [I,C*]

AB The compds. can be converted into epoxy and radical curable derivs. such as that of novolacs, useful for coatings and **photoresists**, are phenolic compds. having aromatic-bonded alkylene groups linking to xylene groups and having alc. OH groups for improving adhesion to substrate surface without requiring strong alkali for their developing. Thus, heating  $\alpha,\alpha'$ -dihydroxy-p-xylene 2070 with p-hydroxyphenyl-2-ethanol 4140, p-toluenesulfonic acid 52 and PhMe 1420 parts at 100° gave a polyphenolic compound (I). Mixing I 10 with a 1,2-quinone diazide compound 6 and propylene glycol monomethyl ether acetate 24 parts gave a pos.-working **photoresist** with good developing property and heat resistance.

ST heat resistance **photoresist** xylene deriv **novolac**  
 alkali developing property

IT Phenolic resins, preparation

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or

engineered material use); PREP (Preparation); USES (Uses)  
(epoxy, **novolak**; manufacture of polyphenol compds. containing xylene structure and their derivs. for use in resin compns. for **photoresists**)

IT **Positive photoresists**

(manufacture of polyphenol compds. containing xylene structure and their derivs.

for use in resin compns. for **photoresists**)

IT Phenolic resins, preparation

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(**novolak**; manufacture of polyphenol compds. containing xylene structure and their derivs. for use in resin compns. for **photoresists**)

IT Epoxy resins, preparation

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(phenolic, **novolak**; manufacture of polyphenol compds. containing xylene structure and their derivs. for use in resin compns. for **photoresists**)

IT Phenols, preparation

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polymers; manufacture of polyphenol compds. containing xylene structure and their derivs. for use in resin compns. for **photoresists**)

IT **79-10-7DP**, Acrylic acid, esters with xylene-containing **novolac**

epoxy resins 106-91-2DP, Glycidyl methacrylate, reaction products with **novolac** having xylene groups 478796-26-8DP,  $\alpha, \alpha'$ -

Dihydroxy-p-xylene-p-hydroxyphenyl-2-ethanol copolymer, glycidyl ether or/and esters with unsatd. dicarboxylic acids 478796-26-8P

478796-27-9DP,  $\alpha, \alpha'$ -Dihydroxy-p-xylene-p-hydroxyphenyl-2-ethanol-phenol copolymer, glycidyl ether or/and esters with unsatd.

dicarboxylic acids 478796-27-9P 478931-83-8P,  $\alpha, \alpha'$ -

Dihydroxy-p-xylene-p-hydroxyphenyl-2-ethanol copolymer hydrogen

tetrahydrophthalate ester 478931-84-9P,  $\alpha, \alpha'$ -Dihydroxy-p-

xylene-p-hydroxyphenyl-2-ethanol-phenol copolymer hydrogen

tetrahydrophthalate ester

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manufacture of polyphenol compds. containing xylene structure and their

derivs.

for use in resin compns. for **photoresists**)

L15 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:617245 CAPLUS

DN 135:187748

ED Entered STN: 24 Aug 2001

TI Quality control of **positively** working lithographic printing plates for IR lasers

IN Aono, Koichiro; Kawauchi, Ikuo; Okuno, Takashi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-30

ICS G03F007-00; G03F007-26

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2001228623	A2	20010824	JP 2000-37437	20000216
PRAI	JP 2000-37437		20000216		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2001228623	ICM ICS IPCI IPCR	G03F007-30 G03F007-00; G03F007-26 G03F0007-30 [ICM,7]; G03F0007-00 [ICS,7]; G03F0007-26 [ICS,7] G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-26 [I,A]; G03F0007-26 [I,C*]; G03F0007-30 [I,A]; G03F0007-30 [I,C*]
AB		Quality control of lithog. printing plates prepared by developing image-forming materials comprising <b>photosensitive</b> layers containing alkali solution-soluble resins and light-heat converting compds. on supports by using alkali developers has been achieved by (A) a step of preparing standard alkali developers and determining their activities by desired indication, (B) a step of measuring activities of the alkali developers to be evaluated as in (A), and (C) a step of comparing the obtained activities data and, if the difference of these values exceeds a desired value, controlling the conditions of printing members in the development step according to the difference.
ST		IR laser pos lithog plate quality control; alkali developer activity measurement lithog plate
IT		Polyoxyalkylenes, uses RL: NUU (Other use, unclassified); USES (Uses) (developers containing; quality control of pos. lithog. printing plates for IR lasers by activities of alkali developers)
IT		Phenolic resins, uses RL: DEV (Device component use); USES (Uses) ( <b>novolak</b> , cresol-based, <b>photosensitive</b> liquid containing; quality control of pos. lithog. printing plates for IR lasers by activities of alkali developers)
IT		Lithographic plates <b>Photoimaging</b> materials (quality control of pos. lithog. printing plates for IR lasers by activities of alkali developers)
IT		56347-72-9 134127-48-3 RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses) (IR-absorbing dye; quality control of pos. lithog. printing plates for IR lasers by activities of alkali developers)
IT		50-70-4, Sorbit, uses 77-92-9, Citric acid, uses 1310-73-2, Sodium hydroxide, uses 7631-86-9, Silica, uses 12136-45-7, Potassium oxide (K2O), uses 25322-68-3, Polyethylene glycol 61792-09-4 RL: NUU (Other use, unclassified); USES (Uses) (developers containing; quality control of pos. lithog. printing plates for IR lasers by activities of alkali developers)
IT		56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (monomer for polymer used in <b>photosensitive</b> liquid; quality control of pos. lithog. printing plates for IR lasers by activities of alkali developers)
IT		207793-01-9 216861-97-1 RL: DEV (Device component use); USES (Uses) ( <b>photosensitive</b> liquid containing; quality control of pos. lithog. printing plates for IR lasers by activities of alkali developers)
IT		124996-93-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses) ( <b>photosensitive</b> liquid containing; quality control of pos. lithog. printing plates for IR lasers by activities of alkali developers)
IT		63-74-1, p-Aminobenzenesulfonamide RL: RCT (Reactant); RACT (Reactant or reagent) (reactant for monomer for polymer used in <b>photosensitive</b> liquid; quality control of pos. lithog. printing plates for IR lasers by

activities of alkali developers)  
 IT **79-41-4**, Methacrylic acid, reactions 541-41-3, Ethyl  
 chloroformate  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (starting material for monomer for polymer used in  
**photosensitive** liquid; quality control of pos. lithog. printing  
 plates for IR lasers by activities of alkali developers)

L15 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2000:837030 CAPLUS  
 DN 134:35045  
 ED Entered STN: 30 Nov 2000  
 TI **Positive-working photosensitive** composition useful as  
 lithographic plate material  
 IN Nakamura, Tatsuo; Kunita, Kazuto; Kitatani, Katsushi  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 34 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM G03F007-004  
 ICS B41N001-14; G03F007-039  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)

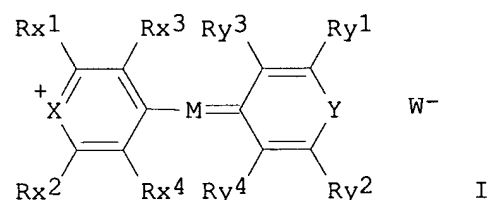
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000330271	A2	20001130	JP 1999-141993	19990521
	US 6602645	B1	20030805	US 2000-573159	20000519
PRAI	JP 1999-141993	A	19990521		
	JP 1999-165506	A	19990611		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2000330271	ICM	G03F007-004
	ICS	B41N001-14; G03F007-039
	IPCI	G03F0007-004 [ICM,7]; B41N0001-14 [ICS,7]; G03F0007-039 [ICS,7]
	IPCR	B41N0001-12 [I,C*]; B41N0001-14 [I,A]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-039 [I,A]; G03F0007-039 [I,C*]
US 6602645	IPCI	G03F0007-039 [ICM,7]
	IPCR	B41C0001-10 [I,A]; B41C0001-10 [I,C*]
	NCL	430/270.100; 101/467.000; 430/302.000; 430/964.000
	ECLA	B41C001/10A2

OS MARPAT 134:35045  
 GI



AB The title **photosensitive** composition contains an acidic group-containing polymer and a IR absorbent of the general formula I (X, Y = O, S, Se, Te; M = methine having  $\geq 5$  conjugated C atoms; Rx1-x4, Ry1-y4 = H, halo, CN, alkyl, aryl, alkenyl, alkynyl, carbonyl, thio, sulfonyl, sulfinyl, oxy, amino; W- = anion) and the solubility to aqueous alkali solns. of the composition



is suppressed prior to irradiation with IR rays, but it becomes soluble in the solns. after irradiation with IR rays. The composition shows high sensitivity toward IR ray lasers, development latitude, and storage stability.

- ST polymer acidic group presensitized lithog plate; IR absorbent methine dye lithog plate
- IT Optical materials  
(IR absorbers; pos. **photosensitive** composition containing polymer with acidic group and IR absorbent for lithog. plate)
- IT IR materials  
(absorbers; pos. **photosensitive** composition containing polymer with acidic group and IR absorbent for lithog. plate)
- IT Phenolic resins, uses  
RL: DEV (Device component use); USES (Uses)  
(**novolak**; pos. **photosensitive** composition containing polymer with acidic group and IR absorbent for lithog. plate)
- IT Lithographic plates  
(presensitized; pos. **photosensitive** composition containing polymer with acidic group and IR absorbent for lithog. plate)
- IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 56347-72-9  
173783-73-8 310896-27-6 310896-29-8 310896-31-2 310896-33-4  
310896-34-5 310896-36-7 310896-37-8 310896-39-0 310896-41-4  
310896-43-6 310896-45-8 310896-46-9 310896-47-0 310896-49-2  
310896-51-6 310896-52-7 310896-53-8 310896-54-9 310896-55-0  
310896-56-1 310901-70-3 310901-73-6 310901-74-7  
RL: DEV (Device component use); USES (Uses)  
(pos. **photosensitive** composition containing polymer with acidic group and IR absorbent for lithog. plate)
- IT 7791-25-5DP, Sulfuryl chloride, reaction products with cresol  
**novolak** resin 27029-76-1DP, m-Cresol-p-cresol-formaldehyde  
copolymer, reaction products with sulfuryl chloride 124996-93-6P,  
Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl methacrylate  
copolymer 303966-00-9P 310901-72-5P  
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP  
(Preparation); USES (Uses)  
(pos. **photosensitive** composition containing polymer with acidic group and IR absorbent for lithog. plate)
- IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide  
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation);  
RACT (Reactant or reagent)  
(preparation and polymerization of)
- IT 63-74-1, p-Aminobenzenesulfonamide **79-41-4**, Methacrylic acid,  
reactions 541-41-3, Ethyl chloroformate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of aminosulfonylphenylmethacrylamide)
- IT 1161-73-5 4485-89-6 151038-73-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of methine dye IR absorbent)

L15 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:448364 CAPLUS

DN 133:81597

ED Entered STN: 05 Jul 2000

TI **Positive**-working **photosensitive** composition for IR ray  
lasers

IN Kimura, Takeshi; Fujita, Osamu

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-027

ICS B41N001-14; G03F007-004; G03F007-023

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000187318	A2	20000704	JP 1998-364091	19981222
PRAI	JP 1998-364091		19981222		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2000187318	ICM	G03F007-027
	ICS	B41N001-14; G03F007-004; G03F007-023
	IPCI	G03F0007-027 [ICM,7]; B41N0001-14 [ICS,7]; G03F0007-004 [ICS,7]; G03F0007-023 [ICS,7]
	IPCR	B41N0001-12 [I,C*]; B41N0001-14 [I,A]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-023 [I,A]; G03F0007-023 [I,C*]; G03F0007-027 [I,A]; G03F0007-027 [I,C*]

AB The title **photosensitive** composition contains (a) a substance which absorbs light to generate heat, (b) an aqueous alkali solution-soluble polymer having phenolic OH group(s), and (c) a polymer comprising (meth)acrylate monomers having 2 or 3 C3-20 perfluoroalkyl groups in their mols. The compns. may optionally contain copolymers containing  $\geq 10$  mol% of  $\geq 1$  monomers selected from (1) a monomer having sulfonamide groups having  $\geq 1$  H atom bonded onto N in a mol., (2) a monomer having an active imino group C(O)NHSO<sub>2</sub>, and (3) hydroxystyrene, and (meth)acrylamide and (meth)acrylic acid esters having phenolic OH group(s). The composition is capable of direct platemaking from digital signals and provides high quality images with improved discrimination and shows improved development latitude.

ST IR laser pos **photosensitive** compn platemaking; fluoroacrylic polymer pos **photosensitive** compn

IT Fluoropolymers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(acrylic; pos.-working **photosensitive** composition for platemaking with IR ray lasers)

IT Phenolic resins, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**novolak**, cresol-based; pos.-working **photosensitive** composition for platemaking with IR ray lasers)

IT Lithographic plates  
(offset; pos.-working **photosensitive** composition for platemaking with IR ray lasers)

IT **Photoimaging** materials  
(**photopolymerizable**, S; pos.-working **photosensitive** composition for platemaking with IR ray lasers)

IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide  
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(pos.-working **photosensitive** composition for platemaking with IR ray lasers)

IT 124996-93-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer  
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(pos.-working **photosensitive** composition for platemaking with IR ray lasers)

IT 63-74-1, p-Aminobenzenesulfonamide **79-41-4**, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(pos.-working **photosensitive** composition for platemaking with IR ray lasers)

IT 117283-53-1, Victoria pure blue BOH 1-naphthalenesulfonate 134127-48-3  
279681-09-3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(pos.-working **photosensitive** composition for platemaking with IR ray lasers)

L15 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1999:801478 CAPLUS  
 DN 132:57146  
 ED Entered STN: 21 Dec 1999  
 TI Infrared laser-sensitive **positive**-working composition for offset  
 printing plate making  
 IN Miyake, Hideo; Kawachi, Ikuo  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 17 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM B41N001-14  
 ICS G03F007-00; G03F007-004; G03F007-039; G03F007-20  
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11348443	A2	19991221	JP 1998-155899	19980604
PRAI	JP 1998-155899		19980604		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 11348443	ICM	B41N001-14
	ICS	G03F007-00; G03F007-004; G03F007-039; G03F007-20
	IPCI	B41N0001-14 [ICM,6]; G03F0007-00 [ICS,6]; G03F0007-004 [ICS,6]; G03F0007-039 [ICS,6]; G03F0007-20 [ICS,6]
	IPCR	B41N0001-12 [I,C*]; B41N0001-14 [I,A]; G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-039 [I,A]; G03F0007-039 [I,C*]; G03F0007-20 [I,A]; G03F0007-20 [I,C*]

OS MARPAT 132:57146

AB The composition comprises (A) an alkali-soluble polymer, (B) a compound  
 inhibiting  
 the solubility of the polymer in the alkaline solution by compatibilizing with  
 the  
 polymer and of which the solubility-inhibiting ability decreases by heating,  
 (C) a light-heat conversion agent, and (D) a self-reactive compound (a  
 compound which reacts explosively by heat, abrasion, impact, etc., in  
 absence of other compound). The material shows high sensitivity to IR laser  
 beam and good developability and is useful for direct printing  
 platemaking.

ST IR laser **photosensitive** compn printing platemaking; self  
 reactive compd ablation **photosensitive** compn; alkali soluble  
 polymer **photosensitive** compn; dissoln inhibitor  
**photosensitive** compn; light heat converting agent  
**photosensitive** compn

IT Ablation  
 (IR-sensitive composition containing polymer, light-heat converting  
 compound, and  
 self-reactive compound)

IT Phenolic resins, uses  
 RL: DEV (Device component use); USES (Uses)  
 (**novolak**, cresol-based; IR-sensitive composition containing polymer,  
 light-heat converting compound, and self-reactive compound)

IT Lithographic plates  
 (offset; IR-sensitive composition containing polymer, light-heat converting  
 compound, and self-reactive compound)

IT 88-89-1, Picric acid 94-36-0, Benzoyl peroxide, uses 556-88-7,  
 Nitroguanidine 622-37-7, Phenylazide 27029-76-1, m-Cresol-p-cresol-  
 formaldehyde copolymer 30260-66-3, Dimethylhydrazine 69415-30-1  
 134127-48-3

RL: DEV (Device component use); USES (Uses)  
 (IR-sensitive composition containing polymer, light-heat converting  
 compound, and

self-reactive compound)  
 IT 252756-70-0P 252756-71-1P, Acrylonitrile-ethyl methacrylate-N-(p-hydroxyphenyl)methacrylamide-methacrylamide copolymer  
 RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)  
 (IR-sensitive composition containing polymer, light-heat converting compound, and self-reactive compound)  
 IT 80-09-1, Bis(p-hydroxyphenyl)sulfone  
 RL: DEV (Device component use); USES (Uses)  
 (dissoln. inhibitor; IR-sensitive composition containing polymer, light-heat converting compound, and self-reactive compound)  
 IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide  
 RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and polymerization of)  
 IT 63-74-1, p-Aminobenzenesulfonamide **79-41-4**, Methacrylic acid, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of aminosulfonylphenylmethacrylamide)

L15 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1999:780998 CAPLUS  
 DN 132:28663  
 ED Entered STN: 10 Dec 1999  
 TI **Positively**-working image-forming material  
 IN Nakamura, Tatsuo; Kunita, Kazuto  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 49 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM G03F007-039  
 ICS B41N001-14; G03F007-004  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 38

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 11338146	A2	19991210	JP 1998-147227	19980528
PRAI JP 1998-147227		19980528		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 11338146	ICM	G03F007-039
	ICS	B41N001-14; G03F007-004
	IPCI	G03F0007-039 [ICM,6]; B41N0001-14 [ICS,6]; G03F0007-004 [ICS,6]
	IPCR	B41N0001-12 [I,C*]; B41N0001-14 [I,A]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-039 [I,A]; G03F0007-039 [I,C*]

AB The title material contains a polymerizable onium salt and a polymer insol. in water and soluble in aqueous alkali. The material, suitable for use in production of lithog. plate materials capable of direct platemaking, shows improved **photosensitivity** and development latitude.  
 ST pos working **photoresist** lithog plate; **photoimaging** material **photopolymerizable** onium salt; water insol polymer pos working **photoresist**; aq alkali sol polymer **photoresist**  
 IT Phenolic resins, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (novolak; pos.-working **photoresist** containing polymerizable onium salt and water-insol. and aqueous alkali-soluble polymer)

IT Lithographic plates  
**Positive photoresists**  
(pos.-working **photoresist** containing polymerizable onium salt and water-insol. and aqueous alkali-soluble polymer)

IT Quaternary ammonium compounds, uses  
Sulfonium compounds  
RL: TEM (Technical or engineered material use); USES (Uses)  
(pos.-working **photoresist** containing polymerizable onium salt and water-insol. and aqueous alkali-soluble polymer)

IT 53810-96-1P 252055-65-5P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; pos.-working **photoresist** containing water-insol. and aqueous alkali-soluble polymer and polymerizable onium salt from)

IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(monomer; pos.-working **photoresist** containing polymerizable onium salt and water-insol. and aqueous alkali-soluble polymer from)

IT 9016-83-5P, Formaldehyde-cresol copolymer 55187-06-9P 124996-93-6P  
252055-45-1P 252055-54-2P 252055-59-7P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(pos.-working **photoresist** containing polymerizable onium salt and water-insol. and aqueous alkali-soluble polymer)

IT 201683-64-9 201683-93-4 252055-47-3 252055-49-5 252055-53-1  
252055-55-3 252055-56-4 252055-58-6 252055-60-0 252055-61-1  
252055-63-3 252055-64-4  
RL: TEM (Technical or engineered material use); USES (Uses)  
(pos.-working **photoresist** containing polymerizable onium salt and water-insol. and aqueous alkali-soluble polymer)

IT 63-74-1, p-Aminobenzenesulfonamide **79-41-4**, reactions  
541-41-3, Ethyl chloroformate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(pos.-working **photoresist** containing polymerizable onium salt and water-insol. and aqueous alkali-soluble polymer from)

IT 106-95-6, reactions 121-44-8, reactions 825-90-1 1073-67-2  
2695-37-6 41532-84-7 61010-04-6 141914-99-0 180574-69-0  
252055-66-6 252055-67-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(pos.-working **photoresist** containing water-insol. and aqueous alkali-soluble polymer and polymerizable onium salt from)

L15 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:210693 CAPLUS

DN 126:205486

ED Entered STN: 31 Mar 1997

TI **Positively** resist composition with high sensitivity and good heat resistance for manufacture of integrated circuit

IN Sato, Kazufumi; Nitsuta, Kazuyuki; Yamazaki, Akyoshi; Sakai, Tomoaki; Nakayama, Toshimasa

PA Tokyo Ohka Kogyo Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-039

ICS G03F007-004; G03F007-016; G03F007-023; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 09006003	A2	19970110	JP 1995-175639	19950620

JP 3553213 B2 20040811  
PRAI JP 1995-175639 19950620  
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 09006003	ICM	G03F007-039
	ICS	G03F007-004; G03F007-016; G03F007-023; H01L021-027
	IPCI	G03F0007-039 [ICM,6]; G03F0007-004 [ICS,6]; G03F0007-016 [ICS,6]; G03F0007-023 [ICS,6]; H01L0021-027 [ICS,6]

AB The composition contains (A) alkali-soluble polymer mixts. of a **novolak** resin whose 1-50 mol% OH groups are substituted by tert-butoxycarbonyloxy groups and polyhydroxystyrene whose 10-60 mol% OH groups are substituted by OCR1R2OR3 (R1 = H, Me; R2 = Me, Et; R3 = lower alkyl), (B) radiation-induced acid-generating compound, and (C) an organic carboxylic acid. The composition showed high sensitivity and resolution and good heat resistance.

ST resist pos butoxycarbonyloxy **novolak** heat resistance; integrated circuit resist butoxycarbonyloxy **novolak**; polyhydroxystyrene resist pos **novolak** resin blend

IT Integrated circuits

**Photoresists**

(high-sensitivity pos. resist containing butoxycarbonyloxyated **novolak** resin for manufacture of integrated circuit)

IT Polymer blends

RL: TEM (Technical or engineered material use); USES (Uses)

(high-sensitivity pos. resist containing butoxycarbonyloxyated **novolak** resin for manufacture of integrated circuit)

IT Phenolic resins, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(**novolak**; high-sensitivity pos. resist containing butoxycarbonyloxyated **novolak** resin for manufacture of integrated circuit)

IT 138529-81-4, Bis(cyclohexylsulfonyl)diazomethane

RL: TEM (Technical or engineered material use); USES (Uses)

(acid generator; high-sensitivity pos. resist containing butoxycarbonyloxyated **novolak** resin for manufacture of integrated circuit)

IT 7081-78-9DP, 1-Chloro-1-ethoxyethane, reaction products with polyhydroxystyrene 24424-99-5DP, Di-tert-butyl dicarbonate, reaction products with **novolak** resin 155214-68-9P 155420-66-9P

RL: PNU (Preparation, unclassified); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(high-sensitivity pos. resist containing butoxycarbonyloxyated **novolak** resin for manufacture of integrated circuit)

IT 69-72-7, o-Hydroxybenzoic acid, uses 79-10-7, 2-Propenoic acid, uses 79-41-4, uses 110-16-7, 2-Butenedioic acid (Z)-, uses 110-17-8, 2-Butenedioic acid (E)-, uses 142-45-0, Acetylenedicarboxylic acid 471-25-0, Propiolic acid 503-64-0, Isocrotonic acid 590-93-2, 2-Butynoic acid 591-80-0, 4-Pentenoic acid 625-38-7, 3-Butenoic acid 1076-97-7, 1,4-Cyclohexanedicarboxylic acid 1127-08-8, 1,1-Cyclohexanedicarboxylic acid 1687-30-5, 1,2-Cyclohexanedicarboxylic acid 3724-65-0, 2-Butenoic acid 3971-31-1, 1,3-Cyclohexanedicarboxylic acid 4355-11-7, 1,1-Cyclohexanediacetic acid 187820-88-8, SAX

RL: TEM (Technical or engineered material use); USES (Uses)

(high-sensitivity pos. resist containing butoxycarbonyloxyated **novolak** resin for manufacture of integrated circuit)

L15 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:180359 CAPLUS

DN 126:285197

ED Entered STN: 17 Mar 1997

TI Bilayer resist approach for 193-nm lithography

AU Schaedeli, Ulrich; Tinguely, Eric; Blakeney, Andrew J.; Falcigno,

Pasquale; Kunz, Roderick R.

CS Ciba-Geigy Ltd, Marly Research Center, Marly, 1723, Switz.

SO Proceedings of SPIE-The International Society for Optical Engineering  
(1996), 2724 (Advances in Resist Technology and Processing XIII), 344-354  
CODEN: PSISDG; ISSN: 0277-786X

PB SPIE-The International Society for Optical Engineering

DT Journal

LA English

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
Section cross-reference(s): 35, 36, 76

AB Tremendous efforts to extend optical lithog. beyond the quarter micrometer  
boundary, which is currently achievable with KrF-excimer laser lithog.,  
are ongoing. 193 Nm lithog., using ArF-excimer lasers, is believed to be  
the technol. of choice to approach the ambitious sub-0.2  $\mu\text{m}$  resolution  
target. Single layer, pos. tone resist systems, which can be developed  
with aqueous base, would be preferred. However, it might well turn out that  
the targeted requirements can only be fulfilled by resist systems which  
involve some type of dry etch steps. This paper will focus on a pos. tone  
bilayer resist system, which is based on novel silicon containing methacrylate  
polymers bearing acid labile side groups. Due to a unique combination of  
monomeric building blocks, polymers with high silicon concns. and, at the  
same time, high thermal flow stability are obtained. Hardbaked  
**novolac** is used as the planarizing layer. Resists systems based  
on the new silicon containing polymers demonstrated 0.175  $\mu\text{m}$  resolution  
capability, a thermal flow stability  $>120^{\circ}\text{C}$ , and an etch  
selectivity ratio  $>20$ .

ST microlithog bilayer resist chem amplification

IT **Positive photoresists**  
(UV; bilayer resist approach for 193-nm lithog.)

IT Integrated circuits  
(bilayer resist approach for 193-nm lithog.)

IT Sputtering  
(etching, reactive; preparation of methacrylic **photoresists**)

IT Polymerization  
(radical; preparation of methacrylic **photoresists**)

IT Etching  
(sputter, reactive; preparation of methacrylic **photoresists**)

IT **Photolithography**  
(submicron UV; bilayer resist approach for 193-nm lithog.)

IT 75-65-0, tert-Butanol, reactions **79-41-4**, Methacrylic acid,  
reactions 109-92-2, Ethyl vinyl ether 109-93-3, Vinyl ether 110-87-2  
920-46-7, Methacryloyl chloride  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of methacrylic **photoresists**)

IT 585-07-9P, tert-Butyl methacrylate 51920-52-6P, 2-Propenoic acid,  
2-methyl-, 1-ethoxyethyl ester 52858-59-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation of methacrylic **photoresists**)

IT 151372-04-2 181468-99-5 181469-03-4  
RL: TEM (Technical or engineered material use); USES (Uses)  
(silicon-containing methacrylate **photoresists**)

L15 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:753530 CAPLUS

DN 126:39726

ED Entered STN: 23 Dec 1996

TI **Positive-working photoresist** composition and control  
of its dissolution rate

IN Sugama, Eriko; Tamura, Akira

PA Toppan Printing Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF

DT Patent

LA Japanese  
 IC ICM G03F007-022  
 ICS G03F007-023; H01L021-027  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08272089	A2	19961018	JP 1995-74345	19950331
PRAI	JP 1995-74345		19950331		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08272089	ICM	G03F007-022
	ICS	G03F007-023; H01L021-027
	IPC	G03F0007-022 [ICM,6]; G03F0007-023 [ICS,6]; H01L0021-027 [ICS,6]

AB The title composition contains an alkali-soluble resin, a 1,2-naphthoquinonediazide-type **photosensitive** agent, and (A)  $\geq 1$  acid selected from benzenesulfonic acid, p-toluenesulfonic acid, benzoic acid, phthalic acid, o-, m-, and p-toluic acids, and salicylic acid or (B)  $\geq 1$  compound selected from quaternary ammonium salts, methacrylic acid, acrylic ester polymers, polyester resins, epoxy resins, and urethane resins. The acids (A) take role as dissoln. accelerator and the agents (B) as dissoln. retardants. These compds. can control the dissoln. rate of the composition without adverse effects on the properties as resist.

ST pos working **photoresist** dissoln rate control; acid addn pos working **photoresist**; quaternary ammonium salt **photoresist**; alkali sol pos working **photoresist**; methacrylic acid pos working **photoresist**; acrylate ester pos working **photoresist**; polyester addn pos working **photoresist**; epoxy resin pos working **photoresist**; polyurethane addn pos working **photoresist**; accelerator retardant dissoln **photoresist**

IT Epoxy resins, uses  
 Polyesters, uses  
 Polyurethanes, uses  
 Quaternary ammonium compounds, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (dissoln. retardants; pos. working **photoresist** containing alkali-soluble components and dissoln. accelerator or retardant)

IT Phenolic resins, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (novolak, cresol-based; pos. working **photoresist** containing alkali-soluble components and dissoln. accelerator or retardant)

IT Dissolution  
**Photoresists**  
 (pos. working **photoresist** containing alkali-soluble components and dissoln. accelerator or retardant)

IT 65-85-0, Benzoic acid, uses 69-72-7, Salicylic acid, uses 88-99-3, 1,2-Benzenedicarboxylic acid, uses 98-11-3, Benzenesulfonic acid, uses 99-04-7, m-Toluic acid 99-94-5, p-Toluic acid 104-15-4, p-Toluenesulfonic acid, uses 118-90-1, o-Toluic acid  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (dissoln. accelerator; pos. working **photoresist** containing alkali-soluble components and dissoln. accelerator or retardant)

IT 79-10-7D, 2-Propenoic acid, ester, polymers, uses 79-41-4, uses 1923-70-2, Tetrabutylammonium perchlorate  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (dissoln. retardants; pos. working **photoresist** containing alkali-soluble components and dissoln. accelerator or retardant)

IT 68510-93-0  
 RL: TEM (Technical or engineered material use); USES (Uses)



(**photosensitive**; pos. working **photoresist** containing  
alkali-soluble components and dissoln. accelerator or retardant)

L15 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 1996:672463 CAPLUS  
DN 125:312433  
ED Entered STN: 14 Nov 1996  
TI **Positive**-working **photoresist** composition with  
high-resolution for good profile  
IN Suzuki, Nobuo; Yamanaka, Tsukasa; Aoso, Toshiaki; Kato, Eiichi  
PA Fuji Photo Film Co Ltd, Japan  
SO Jpn. Kokai Tokkyo Koho, 63 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM G03F007-039  
ICS G03F007-004; H01L021-027  
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08202038	A2	19960809	JP 1995-7759	19950120
PRAI	JP 1995-7759		19950120		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08202038	ICM	G03F007-039
	ICS	G03F007-004; H01L021-027
	IPCI	G03F0007-039 [ICM,6]; G03F0007-004 [ICS,6]; H01L0021-027 [ICS,6]

AB The title composition comprises (1) a resin insol. in water but soluble in an  
aqueous

alkaline solution, (2) a compound capable of generating an acid on being  
irradiated

with an actinic ray or a radiation, (3) an acid dissociation-suppressing  
compound, and (4) block copolymer, wherein the acid dissociation-suppressing  
compound has a mol. weight  $\leq 3,000$ , has acid-dissociable groups, and  
shows acid-caused increasing solubility in the alkaline solution The  
copolymer has a

segment (A) based on  $\geq 50\%$  of a F- or Si-containing monomer and a  
segment (B) containing 0-20% of the F- or Si-containing monomer.

ST pos working **photoresist** compn

IT Fluoropolymers

Siloxanes and Silicones, preparation

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)

(acrylic, block and graft copolymers containing; prepared and contained in  
pos.-working **photoresist** composition)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(**novolak**, contained in pos.-working **photoresist**  
composition)

IT Resists

(**photo**-, pos.-working, containing acid dissociation-suppressing  
compound and block copolymer)

IT 52754-92-4 66003-78-9 124737-97-9 124738-06-3 153698-46-5

153698-67-0 176109-33-4 177786-96-8 177786-98-0

RL: TEM (Technical or engineered material use); USES (Uses)

(acid generating agent contained in pos.-working **photoresist**  
composition)

IT 24979-74-6, p-Hydroxystyrene-styrene copolymer 133685-94-6,  
o-Hydroxystyrene-p-hydroxystyrene copolymer 149642-75-1,  
p-Hydroxystyrene-4-vinylpyridine copolymer 171429-59-7, p-Acetoxy  
styrene-p-hydroxystyrene copolymer 178067-74-8

RL: TEM (Technical or engineered material use); USES (Uses)  
 (contained in pos.-working **photoresist** composition)

IT 4466-18-6 26505-28-2 27955-94-8 31171-18-3 51866-54-7 51866-62-7  
 76937-83-2 102826-48-2 110726-28-8 148452-55-5 148517-26-4  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (dissociation-suppressing compound contained in pos.-working  
**photoresist** composition)

IT 150551-83-0 150551-84-1 150551-85-2 150551-86-3 150551-87-4  
 150551-88-5 150551-90-9 150551-91-0 150551-92-1 150551-93-2  
 155293-25-7 183060-70-0  
 RL: CAT (Catalyst use); USES (Uses)  
 (initiator for preparation of star-type block copolymer for pos.-working  
**photoresist** composition)

IT 79-41-4DP, fluoroalkyl esters, graft copolymers with Me  
 (meth)acrylates 80-62-6DP, graft copolymers with fluoroalkyl  
 methacrylates and Me acrylate 96-33-3DP, Methyl acrylate, graft  
 copolymers with fluoroalkyl methacrylates and Me methacrylate  
 144541-84-4P 150624-67-2P 150624-69-4P 150624-73-0P 150624-74-1P  
 150625-09-5P 150652-03-2P 150737-10-3P 169046-25-7P 183060-58-4P  
 183060-62-0P 183060-63-1P 183060-65-3P 183060-66-4P 183060-67-5P  
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (prepared and contained in pos.-working **photoresist** composition)

IT 150624-68-3P 150624-77-4P, 2,2,3,4,4,4-Hexafluoro butyl  
 methacrylate-methyl methacrylate graft copolymer 150625-00-6P  
 150625-01-7P 150625-03-9P 150625-07-3P 150625-13-1P 150625-16-4P  
 150625-18-6P 150625-22-2P 150642-22-1P 150642-23-2P 150642-24-3P  
 172835-72-2P 183060-60-8P 183060-61-9P  
 RL: PNU (Preparation, unclassified); PREP (Preparation)  
 (prepared for pos.-working **photoresist** composition)

IT 183060-68-6P  
 RL: PNU (Preparation, unclassified); PREP (Preparation)  
 (star-type block copolymer prepared for pos.-working **photoresist**  
 composition)

L15 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:485266 CAPLUS

DN 125:127850

ED Entered STN: 15 Aug 1996

TI **Positive**-working **photosensitive** composition and  
 manufacture of lithographic plate

IN Kawachi, Ikuo

PA Fuji Photo Film Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-039

ICS G03F007-00; G03F007-022; G03F007-023; G03F007-033; G03F007-035

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08123029	A2	19960517	JP 1994-263862	19941027
	JP 3335015	B2	20021015		
PRAI	JP 1994-263862		19941027		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08123029	ICM	G03F007-039
	ICS	G03F007-00; G03F007-022; G03F007-023; G03F007-033; G03F007-035
	IPCI	G03F0007-039 [ICM,6]; G03F0007-00 [ICS,6]; G03F0007-022 [ICS,6]; G03F0007-023 [ICS,6]; G03F0007-033 [ICS,6];

## G03F0007-035 [ICS,6]

AB The composition comprises (a) an polymer with a sulfonamide group and insol. in water and soluble in an alkaline aqueous solution, (b) an alkali-soluble novolak

resin, (c) a pos.-working **photosensitive** compound, and (d) a cyclic lactone. A pos.-working presensitized lithog. plate is prepared by coating the composition on a substrate and drying. The plate shows good development latitude, abrasion resistance, printing durability without burning treatment, and chemical resistance.

ST lithog plate presensitized cyclic lactone; **photosensitive** compn sulfonamide group polymer

IT Lithographic plates

(pos.-working **photosensitive** compns. containing cyclic lactones for preparation of)

IT Urethane polymers

RL: DEV (Device component use); USES (Uses)

(pos.-working **photosensitive** compns. for lithog. plate preparation containing cyclic lactones and)

IT 124996-94-7, N-(p-Aminosulfonylphenyl)methacrylamide-ethyl methacrylate-methacrylic acid copolymer 124996-96-9 179695-30-8

RL: DEV (Device component use); USES (Uses)

(pos.-working presensitized lithog. plate containing cyclic lactone and polymer with sulfonamide group)

IT 96-48-0,  $\gamma$ -Butyrolactone

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(pos.-working presensitized lithog. plate containing cyclic lactone and polymer with sulfonamide group)

IT 62814-37-3P, N-(p-Aminosulfonylphenyl)methacrylamide-methyl methacrylate copolymer 124996-93-6P, Acrylonitrile-N-(p-Aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer 124996-98-1P 179695-31-9P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(pos.-working presensitized lithog. plate containing cyclic lactone and polymer with sulfonamide group)

IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide 124996-97-0P

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(preparation and polymerization of)

IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, reactions

920-46-7, Methacrylic acid chloride

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of aminosulfonylphenylmethacrylamide)

IT 17872-58-1P 179695-32-0P

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(preparation of dihydroxymethylethylcarbonylaminobenzenesulfonamide)

IT 108-24-7, Acetic anhydride 4767-03-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of dihydroxymethylethylcarbonylaminobenzenesulfonamide)

=> D HIS

(FILE 'HOME' ENTERED AT 19:14:15 ON 23 JUN 2006)

FILE 'REGISTRY' ENTERED AT 19:14:32 ON 23 JUN 2006

L1 1 S METHACRYLIC ACID/CN

L2 46112 S 79-41-4/CN

L3 0 S ACRYLIC ACID/CN

L4 1 S ACRYLIC ACID/CN

L5 0 S 79/10/7/CN

L6 59563 S 79-10-7/CN

FILE 'CAPLUS' ENTERED AT 19:15:44 ON 23 JUN 2006

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L7      26806 S (NOVOLAK OR NOVALAK OR NOVOLAC OR NOVOLAK) OR ((PHENOL CRESOL
L8      53490 S L1 OR L4
L9      592 S L8 AND L7
L10     2 S L9 AND ACETAL
L11     0 S L9 AND POLYACETAL
L12     6 S L9 AND PHOTOACID
L13     0 S L11 AND PHOTO?
L14     319 S L9 AND PHOTO?
L15     16 S L14 AND POSITIV?

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
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STN INTERNATIONAL LOGOFF AT 19:20:06 ON 23 JUN 2006